



A Weekly Journal of Pharmacy and the Drug-trade.
ESTABLISHED 1859.

Head Office: 42 Cannon Street, London, E.C.

Telegrams: "Chemicus London." Telephone: 852 Bank.

Branches: ADELAIDE, MELBOURNE, AND SYDNEY, AUST.

As an Official Organ

THE CHEMIST AND DRUGGIST is supplied by subscription to the whole of the members of EIGHTEEN CHEMISTS' SOCIETIES in the British Empire, including Ireland, Australia, New Zealand, South Africa, and the West Indies. Besides, its paid subscription circulation at home and to all parts of the civilised world is intrinsically and numerically unique.

SUBSCRIPTION RATES.

Ten shillings a year in advance, post free to any part of the world, including a copy of *The Chemists' and Druggists' Diary* next published. Single copy, 4d.; Summer or Winter Number, 1s.; *Diary*, 3s. 6d. Postal orders and cheques to be crossed "Martin's Bank (Limited)."

CONTENTS: Vol. LXXI., No. 9 (Series No. 1440).

	PAGE		PAGE
American Notes	367	Irish News	363
Australasian News	366	Legal Reports	378
Bankruptcy Report.....	378	Marriages	379
Birth	379	Medical Gleanings	370
Book-plates	389	Medicines for Man-	
Books, New	360	churia	372
Business Changes.....	368	New Companies and	
Canadian News	367	Company News	378
Cathartics and Chola-		Observations and Re-	
gogues	371	flections	373
College Notes ... <i>Col. Supp.</i>		Personalities	368
Colonial and Foreign		Photographic Notes ...	380
News	365	Poisonings	368
Coloured Bromides	380	Practical Notes	382
Combined Wash-bottle		Prescription Much-tra-	
and Pipette	382	velled	372
Corner for Students	360	Reviews	381
Correspondence	389	Reynoldsiana	371
Deaths	379	Science in Chemical	
Deed of Arrangement... 378		Works	369
Editorial Comments—		Scotch News	363
Cresol as a Germicide 374		Shop and Soap Taxes... 384	
"Le Roy le veut" ... 375		Spanish Turpentine 379	
A Code of Pharma-		Sulphuric Acid from	
ceutical Etiquette ... 375		Coal-gas	377
Preservatives and		Trade-marks Applied for	
Dyes in Food	376	<i>Col. Supp.</i>	
Notes	376	Trade Notes	369
English News	361	Trade Report	385
French News	364	Westminster Wisdom... 368	
Gazette	378	Window-tickets	383
Information Wanted.... 367		With the Scottish Horse 384	

The Chemists' and Druggists' Diary, 1908. 40th Year of Publication.

THE preparation of this work has commenced, in order that the delivery of copies to our subscribers abroad by Christmas may be ensured. Advertisers who wish to avail themselves of the opportunity of making their announcements in the DIARY should make sure of getting space by addressing the publisher of THE CHEMISTS' AND DRUGGISTS' DIARY, 42 Cannon Street, London, E.C. The DIARY is presented free to all subscribers to THE CHEMIST AND DRUGGIST, and being in daily use by thousands of our readers throughout the year is the most esteemed and valuable advertising-medium of the kind in the world. Besides valuable and novel reference and practical information, the 1908 DIARY will contain a BUYERS' GUIDE to the agents for and makers of chemicals, medicines, and druggists' goods of all kinds. To secure entries therein it is necessary to advertise the goods in the DIARY.

Summary.

The subjoined paragraphs give the gist of the more important matters in this issue, with the object of showing at a glance what has happened during the week. See also "Contents" in the first column.

SEVERAL books are reviewed on p. 381.

SOME hints on bottling apomorphine ampoules are given on p. 382.

THE formula for Pavy's sugar-testing solution is reproduced on p. 382.

A FURTHER NOTE on the incidence of the New Zealand tariff is given on p. 376.

THE scope of the Board of Agriculture Glanders Order has been enlarged (p. 361).

A METHOD of treating inebriates is given on p. 370, in which daturinae sulphas is used.

A NEW IDEA in a combined wash-bottle and pipette is illustrated and described on p. 382.

SOME chatty notes on pharmacy at Toulouse are given by our Paris Correspondent on p. 365.

A PHOTOGRAPH of a prescription that has travelled all over the world is given on p. 372.

A STANDARD for "liquid foods" has been suggested by the American Medical Association (p. 377).

THE substance of a new Pure Food Bill, which is before the New Zealand House of Representatives, is given on p. 366.

DR. LEONARD DOBBIN begins a series of analytical varia, which should be studied by every apprentice and unqualified assistant (p. 360).

MME. CURIE is disposed to agree with Ramsay, Rutherford, and Soddy in their views on the atomic transformation of radium (p. 364).

MR. JONATHAN HUTCHINSON'S views on examinations, which were the subject of a lecture by that eminent surgeon, are again referred to on p. 373.

THE use of mistletoe in medicine is being investigated in France, and various pharmaceutical preparations of the plant have been prepared (p. 377).

IN the Duchy of Brunswick a code of etiquette for pharmacists has been evolved on the lines of the ethical rules that prevail in the medical profession (p. 375).

THE attention of photographic chemists is drawn to the methods of colouring bromide prints given on p. 380, and also to the photographic notes on the same page.

A GOOD FORMULA for cattle-dip is given on p. 376. By the use of this liquid ticks can be exterminated, and the epidemic diseases which are spread by the ticks prevented.

MR. D. B. DOTT, of Edinburgh, has found sulphuric acid in coal-gas, and suggests that the subject is worthy of investigation from the public health point of view (p. 377).

THE preservatives and dyes which may be used in foods to conform with the regulations of the U.S. food and drug law are given on p. 376. The note is of importance to exporters.

CALCIUM CHLORIDE was an ingredient in test prescriptions sent out by the medical officer of health for Westminster. The necessity of using a non-deliquescent sample of the drug is emphasised (p. 362).

THE Inland Revenue report furnishes "Nrayser" with some interesting observations and reflections. He particularly notes the increase of companies and the decrease of the consumption of beer and spirits (p. 373).

THE value of liq. cresolis co., U.S.P., as a disinfectant seems to be established by a report of the U.S. Department of Agriculture. We give the formula on p. 374, and commend it to chemists who wish to make a miscible and easily used germicide for use by surgeons or in the household.

A SUBSTANTIAL REDUCTION in English and German refined camphor is a feature of the markets. Japanese monopoly camphor is also lower. Quinine is higher in second hands, but makers' prices are as yet unaltered. Opium is still tending easier. Citric acid is flat and lower. Star aniseed oil is firmer, chamomiles are easier, and shellac is lower. All Moroccan products remain dear (p. 384).

Corner for Students.

CONDUCTED BY LEONARD DOBBIN, PH.D.

SUMMER STUDIES.

THE exercises in qualitative analysis are suspended during July and August, and will be resumed in September, all who are preparing for qualification in chemistry and pharmacy being eligible to compete. For summer studies we shall deal with a series of topics directly bearing upon the pharmaceutical examinations.

Analytical Varia.—I.

IN the course of the present article, and in one or two short succeeding articles, we propose to deal with some matters of analytical interest which have arisen at times in connection with our monthly exercises in complex qualitative analysis.

ECONOMY OF SUBSTANCE.—The small quantity of the powder supplied for analysis to each applicant has been the subject of frequent comment on the part of students. The supplying of each applicant with a sample consisting of about 1 gram (15 grains) of the powder for analysis is a policy deliberately adopted, as best calculated to aid students in acquiring habits of neat working, of close observation, and of thoughtful economy of the substance under analysis. Cases frequently arise in actual experience where the quantity of material available is strictly limited, and where, in consequence, only the most rigidly economical use of it is permissible. It is in such cases that the excellent discipline of having been compelled, at times, to deal with small quantities only, and thereby to cultivate the habit of careful and economical handling, serves the analyst as an invaluable aid. There is a tendency on the part of most students, who have not been taught otherwise, to use, when available, quantities of material enormously in excess of that which has been found desirable for rapidity and ease of working. We have met with students who supposed that instructions to use small quantities of the substances under analysis, and, incidentally, of the needful reagents, were dictated solely from considerations of expense, and who did not, as a rule, appreciate their mistake until it had been enforced, by actual experience, that the economy of their time was the real object aimed at. By careful training, and especially by the aid of one or two practical demonstrations, even a beginner can soon be convinced that there is a very great saving in the time required for the necessary filtrations, evaporations, washing of precipitates, etc., when only test-tube quantities of liquids have to be dealt with, instead of the flask and beaker quantities which are often used. Provided the quantities of materials and reagents employed are sufficient to exhibit, with close observation, the desired reactions in an unmistakable manner, then the smaller these quantities are, the better. It is of the first importance, however, when using a small quantity only of the substance under analysis, to use the reagents in correspondingly small quantities, and, by keeping the total volume of liquid small (evaporating whenever it is necessary), to maintain a sufficient concentration of the solutions to the close of the analysis.

In carrying out the analysis of an unknown substance, and particularly in the preliminary examination, there are various economies which may be practised with advantage. We shall refer to some of these here; the thoughtful student will be able to devise others for himself.

1. The residue from the portion of the original substance which has been heated in a dry tube, in order to observe its general behaviour—change of colour, charring, evolution of volatile substances, formation of sublimates, etc.—may, after cooling, be used in:

- (a) The borax-bead test for copper, chromium, manganese, etc.;
- (b) The match test, or the charcoal-block test, for lead, silver, antimony, etc.;
- (c) The hydrochloric-acid and turmeric-paper test for borates;
- (d) The nitric-acid and ammonium-molybdate test for phosphates;
- (e) The sulphuric-acid test for fluorides (provided that boron fluoride or silicon fluoride was not evolved during the original heating);
- (f) The fusion test with sodium carbonate and potassium nitrate for "sulphur in any form" (provided that sulphurous anhydride was not evolved and that there was not any sublimate formed—of sulphur or a volatile sulphide—as a result of the original heating).

2. The mixture left after heating a portion of the original substance with concentrated sulphuric acid, in testing for chlorides, oxalates, tartrates, etc., may, after cooling, be tested for borates by adding alcohol, warming gently, and setting fire to the alcohol.

3. The mixture obtained on heating a portion of the original substance with hydrochloric acid, in testing for carbonates, sulphides, etc., may:

- (a) Be used in the turmeric-paper test for borates;
- (b) Be reserved as part of the material for the hydrochloric-acid solution which is to be examined, subsequently, for metallic radicals.

4. The precipitate (if any) which is produced on boiling a portion of the original substance with sodium carbonate in preparing a solution to be examined for acid radicals, may contain a variety of metallic radicals. It should not be thrown away, but should always be kept in reserve for further examination with a view to confirm the presence or absence of metallic radicals about which there may be any doubt. This matter will be referred to again in a subsequent article in which some points concerning the testing for acid radicals will be discussed.

RESERVING PRECIPITATES, ETC.—Of quite as much importance as the subject of the economy of substance in an analysis is the closely related subject of the preservation, till the completion of the analysis, of the unused portions of all solutions, filtrates, precipitates, residues, etc., which have been duly examined and with respect to which conclusions have been arrived at. During the later stages of an analysis questions and doubts often arise which can be settled with ease by the application of further tests to some of the precipitates, etc., obtained at earlier stages, if these have been preserved. The careful analyst is punctilious with respect to this matter, and does not throw away any material likely to be of further service until his analysis is finished. Students should note this and imitate. Confirmatory tests cannot be applied to materials that have been put down the sink!

New Books.

These notes do not necessarily exclude subsequent reviews of the works. Any of these books printed in Great Britain can be supplied, at the published price, to readers of this journal on application (with remittance) to the Publisher of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Barnett, H. N. *Sea-sickness: Its True Cause and Cure.* 7½×5. Pp. 40. 1s. 6d. net. (Baillière.)

Koch, L., and Gilg, E. *Pharmakognostisches Praktikum.* Eine Anleitung zur mikroskopischen Untersuchung von Drogen und Drogenpulvern. 140 illus. 9½×5½. Pp. 272. 6m. 80p. (Gebrüder Bornstraeger, 29 Dessauerstrasse, Berlin.)

Forel, A. *Hygiene of Nerves and Mind in Health and Disease.* Translated from German. 8½×5½. Pp. 356. 6s. net. (Murray.)

Greenwood, W. H. *Iron: Its Sources, Properties, and Manufacture.* Rev. and illust. 7½×4½. Pp. 264. 3s. (Cassell.)

Wanklyn, J. A. *Water-analysis: A Practical Treatise on the Examination of Potable Water.* 11th edit. 7¼×4½. Pp. 266. 5s. (K. Paul.)

Merillat, L. A. *The Principles of Veterinary Surgery, including a Translation of General Veterinary Surgical Pathology,* by C. Cadeac, P. Leblanc, and C. Carougeau. 9½×5½. Pp. 684. 18s. net. (Baillière.)

English News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Brevities.

A naval pensioner at Torquay who was taken suddenly ill was driven to the pharmacy of Mr. J. Young, in Fleet Street. Mr. Young advised the man's immediate removal to the Torbay Hospital, where he died about ten minutes after admission.

At the Newington Sessions on August 22, James Quibell Brown (39), clerk, was sentenced to three months' imprisonment in the second division for stealing 40*l.* 14*s.* 2*d.*, the money of his employers, Joseph Thorley, Ltd., cattle-food manufacturers.

At Pontypool, on August 24, a labourer named Wheeler was committed for trial at the Quarter Sessions for maliciously breaking a plate-glass window, value 10*l.*, at the establishment of Mr. Godfrey C. Wood, chemist and druggist, George Street, Pontypool.

A correspondent of the "Daily Telegraph," writing on the "Puritan" style of life on Sundays at Bournemouth, remarks, as affecting the visitor: "He dare not be ill till 6 p.m., for the chemist announces 'No attendances on Sundays except from 6 to 9.30 p.m.'"

A general meeting of the London Chemists' Association will be held at St. Bride Institute on Wednesday, September 4, at 3.30 p.m., when Mr. Pentney will report on his visit to the Federation at Manchester, and Mr. G. P. Pond will bring forward for approval a history of the Association and a new book of rules. The General Purposes Committee will meet at 3 p.m.

An inquest was held in the City Coroner's Court, on August 23, on the body of Mrs. Marion Meachen (60), wife of Mr. Edward Meachen, manufacturing chemist, of Aylesbury Street, Clerkenwell. Mrs. Meachen died in St. Bartholomew's Hospital, after being taken suddenly ill at Fenchurch Street Station. The *post-mortem* showed that death was due to sanguineous apoplexy.

At Cambridge, on August 20, a provision merchant named Moden was fined 1*l.* and 7*l.* 5*s.* 3*d.* costs for selling a liquid preparation containing 9 per cent. of carbolic acid homologues. The prosecution was at the instance of the Pharmaceutical Society, and arose from a case of attempted suicide heard at that Court two months previously, the accused having purchased the acid at defendant's shop.

A special general meeting of the British Optical Association was held at the Midland Hotel, Manchester, on August 28, to consider a letter from Mr. A. Jameson with reference to the Association. The meeting subsequently amended the new regulations of the Association by a few alterations, chiefly grammatical, after which they were unanimously adopted, and will be submitted to the Board of Trade for sanction.

An inquest was held at Islington, on August 26, on the body of a widow named Roofe, who had been prescribed for previous to her death by a herbalist. A son of the deceased had applied to the herbalist for a death certificate, which the latter said he could not give. The district medical officer, who made an autopsy, ascribed death to syncope from extensive heart disease, and said the medicine given by the herbalist would do Mrs. Roofe good and not harm. The coroner complained, however, that had a qualified medical man been called in he would have given a certificate and the county would have been saved the cost of an inquest.

New Glanders Order.

The Board of Agriculture, under the Diseases of Animals Acts, 1894 to 1903, have made a new glanders or farcy order which extends to England, Wales, and Scotland, comes into operation on January 1, 1908, and revokes the order made in 1894. A diseased horse, ass, or mule is defined as one in which the clinical symptoms are definite evidence of disease or in which the application of the mallein-test has resulted in definite evidence of disease. An animal is to be deemed to be suspected if the symptoms are insufficient to make the animal "a diseased animal" within the definition of the order. No animal may be landed in Great Britain (un-

less from Ireland, the Channel Islands, or the Isle of Man) without a veterinary certificate that it has been examined and found free from symptoms of the disease. Local authorities are given power to destroy infected animals, and the owner may appeal to the Board of Agriculture for compensation.

Look Out for the "Colonel."

The swindler about whom we warned our subscribers in the *C. & D.*, August 10, p. 235, has since visited Rhyl, Chester, and Windermere. A subscriber at the first-named town received a tempting order for camera and accessories which came to over 10*l.*, and at Chester an order for 12*l.* was given. The "Colonel" is now using cheques on the Old Colwyn branch of Parr's Bank (part proceeds of a robbery), which he signs "F. A. Lankester." He talks of South Africa and Cecil Rhodes, and states that he is engaged on the Cape to Cairo Railway, but is home on sick-leave. Judging by his exploits, we should think he will soon enter the Government service; in the meantime photographic chemists should be on the look-out.

Plymouth Chemists' Association.

The quarterly meeting of the Plymouth, Devonport, Stonehouse and District Chemists' Association took place at Plymouth on August 26. Mr. C. J. Park was elected to the chair. The revised rules of the Association were read, and copies were ordered to be circulated among the members. In accordance with one of the new rules, an Educational Committee, consisting of Messrs. Ancliffe, F. Barge, H. H. Cannon, J. E. Gwillim, H. Noel Hearder, and the President, Treasurer, and Secretary of the Association, was nominated, but other names may be sent in up to September 25. It was intimated that increased facilities would be provided at the local Technical School during the coming winter for pharmacy students. Mr. J. Davy Turney drew attention to a proposed scheme of organisation of the Pharmaceutical Society, but our report does not give details of the scheme. It was ultimately agreed that the scheme as a whole commended itself to the meeting, and was well worthy of a trial.

Co-operative Drugs and Soap.

The Co-operative Exhibition at the Crystal Palace last week attracted a large number of visitors from London and the provinces, it being estimated that on the closing day (Saturday) some 30,000 passed through the turnstiles. As usual, the Co-operative Wholesale Society had the bulk of the space, the other exhibits being the collective display of the Co-operative Production Federation. Some of the features were soap milling and stamping, shirtmaking, tailoring, cigarette and cigar making; but, judging by the number of exhibits, it seemed possible to obtain almost everything one requires under co-operative conditions, from a thimble to a house. The only evidence of pharmacy was the exhibit of the Co-operative Sundries Manufacturing Society, Ltd., Bee Hive Works, Droylsden, which made a large display of penny, threepenny, and sixpenny lines suitable for grocers. There were penny tins of cold-cream, camphor-cream, camphor-ice, while winter wafers, cream of tartar, Epsom salts were also put up in neat penny packets. Petroleum jelly in lever-top tin, containing 2½ oz. net., was being sold at 3*d.*—rather a dear line. Iron pills, chemical food, lung balsam, household ammonia (marked "Poison"), and bronchial balsam were among other items. The Irlam Soap-works had erected machinery showing the process of milling and stamping soap on a small scale, and the girl attendants were kept busy retailing "Galatea" and other perfumed toilet soaps in boxes of three for the nimble sixpence; while the mere male was able to find solace in the purchase of a delicately perfumed shaving stick for threepence.

An Embezzlement Charge.

At Manchester Police Court on August 23, Mr. A. Thorley, wholesale druggist, of 34 Seedley Road, Pendleton, prosecuted Charles H. Armstrong, who had been in his employ as a traveller, on a charge of embezzlement. The amount involved, it was stated for the prosecution, was 10*l.* or 11*l.*, but the specific cases proceeded with had regard to two sums of 3*s.* 10*d.* each, paid to the defendant by Mr. F. A. Eastwood, chemist and druggist, of Chorlton-on-Medlock, and by Mr. E. Bayley, drysalter, 185 Stockport Road, Ardwick, and not accounted for by the defendant.

The complainant (trading as the Rubwel Co.) is the proprietor of a skin ointment, and the defendant was engaged by him to sell and solicit orders for the ointment at a salary of 15s. per week and 12½ per cent. commission, with travelling expenses. Defendant was to render an account daily of goods sold and moneys received. In his statement for July 23 no account appeared of a sum of 6s. 6d. received from Mr. Eastwood, but in that for July 29, 2s. 8d. was set down as having been so received. Mr. Bayley had also paid 6s. 6d., and had been credited with 2s. 8d. No reports being received from defendant, the matter was placed in a solicitor's hands. Besides retaining moneys received from customers, the defendant had also in hand goods for sale, of which he gave no account. The defendant said he was entitled to hold moneys received against salary and commission, the balance, if any, being payable to the complainant. He handed to the Bench a statement, showing how the goods entrusted to him had been disposed of, and added that there was a balance owing to him of 2l. 8s. 8d. The complainant said he had not before seen that statement, and had no means of testing its accuracy. The payment to the defendant of the sums referred to by Mr. Eastwood and Mr. Bayley having been proved, the defendant said he was authorised to use, and was justified in using, moneys received to meet expenses. The Bench were of opinion that the case was one for the County Court, and therefore they dismissed the summons.

Midland Notes.

A new Isolation Hospital has been erected at Smethwick at a cost of 20,000l., thus affording another niche to be filled by the pharmacist as dispenser.

Colonel Wyley's charming residence, "The Charter House," Coventry, is to let furnished during the absence abroad of the owner on the Continent for five months, from November 1.

At Aston on August 23, a milkseller was mulcted in the nominal fine of 5s. and costs for selling milk adulterated with formic aldehyde. This is the first prosecution of the kind in Warwickshire.

A specific for glanders in horses would make someone's fortune, for it is said that a city like Birmingham is seldom free absolutely, and just now the disease is somewhat extensively in evidence.

Hops in Herefordshire are going strong, both in burr and bine, but the crop will be later owing to the cold nights. Spraying has been but little required compared with last season, and prospects seem rosier generally.

A sketch of the life and an appreciation of the work of Linnaeus, the great Swedish naturalist, is contributed by Professor W. Hillhouse, of the Birmingham University, to the local Natural History Society's publication.

Sir James Sawyer is to deliver the Lumleian lectures at the Royal College of Physicians during the forthcoming season. Sir James has a beautiful house at Haseley Hall, Warwickshire, and his garden contains all the medicinal plants that can be grown in England.

Those of Ruskin's admirers who are also botanists should see his examples of pen and wash in the Birmingham Art Gallery. He portrays the primrose and its parts, and in his own handwriting calls attention to "pollen on root of leaf with tendency to become a stamen." Evidently he was napping on that occasion.

A man in the employ of a Birmingham tradesman was suffering from neuralgia in the face, and, meeting a sympathetic friend, he was advised to obtain a quantity of carbonate of iron and take "some" in a glass of stout. He did so, taking the whole of the purchase, which was enough for several doses. The patient became alarmingly ill as a result, and had to hasten off to a medical man for relief.

According to the "Birmingham Mail" the cold weather has been a blessing in disguise. Medicine and pharmacy have taken advantage of the freedom from sickness in the city to go for a holiday and recruit for the coming winter. The same authority states that "makers or vendors of patent medicines" licences have grown in number more than other licences during the last decade. The figures are: 1896-7, 32,473; 1906-7, 41,353.

The local chemist-prescriber has been quizzed a good deal concerning urticaria since the celebrated case of the Moseley yeoman who was unable, on the certificate of three eminent local medical men, to attend his annual drill because he suffered from that complaint. It has also enabled chatty "Robin Goodfellow," of the "Birmingham Mail," to entertain his readers with a dissertation on nettles—dead, red, and otherwise—of "the order Lamie and Urticæ," as he puts it. "Robin" calls attention to the fact that the white dead nettle is called the archangel and also "poor man's orchid," and that the supposed impeccable Webster's Dictionary, in one of its editions, has a small woodcut of a nettle which is in reality an archangel!

Master and Apprentice.

At North London Police Court on August 28, Louis Harris Marks, of Beaumont Street, Mile End, apprentice to Mr. George Alexander Simmons, clinical thermometer maker, of Seven Sisters Road, was summoned for failing in his indenture contract. The allegations against the lad were that he wilfully spoilt his work, that he was impudent to his master, and that he absented himself from his work without leave. On a question of the spoilt work, it was said that the bulbs were blown too large, and would not do the work for which they were intended. It transpired that the defendant wanted to go and work for another master, but Mr. Fordham (the Magistrate) said that could not be allowed. He had been bound apprentice for seven years and must serve that term. He (the Magistrate) would not hold that the lad had wilfully spoilt his work, but he advised him to go and finish his indenture in a manly way.

The Working of the Food and Drugs Acts.

The samples taken under the Sale of Food and Drugs Acts last year in Lambeth, in Lewisham, and in Poplar were all found to be genuine. The only drug sample taken in Poplar during the year was one of lime-water.

In Stepney last year all the drug samples taken were genuine. The same applies to Southwark, where the samples taken included citric acid (1), acetic acid (1), tartaric acid (2), Gregory's powder (1), fluid magnesia (2), crushed linseed (6), milk of sulphur (2), glycerin (6), castor oil (1), cod-liver oil (1), linseed oil (1), eucalyptus oil (1), camphorated oil (4), olive oil (5), lime-water (2), distilled water (1), sherbet (2), lemonade powder (1), and orange quinine wine (1).

The Bradford city analyst (Mr. F. W. Richardson) reports that of the samples taken by the Food and Drugs inspector during last year 7.4 per cent. were found to be adulterated. The only cases affecting the chemist which are reported upon are one sample of "headache powders," which consisted entirely of acetanilide; one sample of "pepsina," which was largely deficient in pepsine; and two samples of liniment of camphor, which contained one-fourth and one-third respectively of the proper amount of ammonia.

In his quarterly report to the Kent County Council, the public analyst (Mr. M. A. Adams) states that the whole of the 24 samples of drugs taken for analysis were genuine. Supplementary to these, however, 46 samples of cream of tartar, 35 of Seidlitz powders, 40 of tartaric acid, and 30 of citric acid were taken at the request of the Local Government Board for the purpose of detecting lead and arsenic. The results showed that these articles contained only traces of arsenic, and of lead amounts varying from 0.00018 per cent. to 0.00344 per cent. Excess of lead was found in one sample of cream of tartar, and in four of tartaric acid, but all the samples of citric acid and Seidlitz powders passed muster.

Dr. Allan, medical officer of health for Westminster, states in a report that the attention of chemists in the district has been called to the fact that calcium chloride was included in certain prescriptions which were made up for analysis and a marked deficiency was found in several samples, varying from 18 to 40 per cent. This drug, the report goes on to say, is of deliquescent nature, and should be kept in small quantities and in closely stoppered bottles or in solution, otherwise prescribers finding the doses ordered insufficient for the purpose for which the drug was intended may be led to use larger doses, and if these happen

to be made up of a full-strength drug, there may be unfortunate results.

Outings.

The annual summer excursion of the Nottingham and District Branch of the Drug-stores Association was held on August 22, in glorious weather. A large number of members and friends went by train to Rowsley, where brakes were waiting to convey the party to Matlock *via* Haddon Hall. The return journey was made by train from Matlock Bath.

The members of the Sheffield Branch of the National Association of Medical Herbalists combined business with pleasure on August 22. A party went by train to Conisborough, and from there drove *via* Edlington to Tickhill, and afterwards by Rossington Bridge to Doncaster. A considerable amount of herb-hunting was done *en route*, among the herbs collected being devil's bit, self heal, agrimony, St. John's wort, ladies' bedstraw, and woundwort.

Cricket.

Wholesale Chemists' and Druggists' Cricket Championship.—A League match was played at Brockley on August 24 between Davy Hill C.C. and Gramme C.C. The scores were: Gramme C.C., 75; Davy Hill C.C., 102 for six wickets.

Leicester Pharmacy Athletic Club.—On August 22 L.P.A.C. met St. Mary's C.C. on the Old County Ground, Aylestone Park, Leicester. St. Mary's batted first, and knocked up a total of 75 by patient play, the bowling being excellent. An exciting game ended in a win for the Chemists by 8 runs.

Irish News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Personal.

Mr. J. C. C. Payne, J.P., pharmaceutical chemist, Bradbury Place, Belfast, acted as deputy for the City Coroner during the latter's absence from town last week.

Business Idea.

McClinton's Hibernia shaving-soap is advertised by sending out a thin shaving of the soap as a sample. The soap is stuck on the centre of a piece of card and covered with waxed paper. On the back of the card directions for use are given.

A Generous Doctor.

At Newry Board of Guardians on August 24, when a requisition was received from Dr. Lavery for medicines and surgical appliances for Rathfriland Dispensary, the doctor explained that the requisition was rather high because his predecessor, the late Dr. Elliott, had used his own surgical instruments, and no medicines had been supplied to the dispensary district for a considerable time.

Guardians and Drug-supply.

Dr. Bell, of Warrenpoint, when asked to explain why certain drugs were charged for recoupment in the wrong quarter of the year, replied that the drugs were not received till a month after the invoice (*C. & D.*, August 17, p. 291). It now appears that the station-master acquainted Dr. Bell with the fact that the drugs were at the station. The Chairman added that the doctor seemed to be very much cornered.

Medicine Empties.

At Downpatrick Board of Guardians on August 24, a letter was read from the Local Government Board, stating that complaints had been received from medicine contractors that in many cases their empties were neither returned nor paid for by the Guardians of certain Unions. The Board pointed out that it was incumbent on Guardians to see that their officers should facilitate in every way the return of empties, and in the event of any loss being sustained by Guardians through the contractors suing for the value of such, both the Guardians and their officers might be held personally liable by the auditor. The Clerk explained that the present medicine contractor had agreed to pay the expenses of such consignments of

empties sent from the dispensaries, so that there was no difficulty experienced as indicated by the Board. This question of empties has often given rise to litigation in Ireland, and the contractors have invariably succeeded in their claims.

Alcohol as a Drug.

The Enniskillen Guardians had before them at their last meeting a letter from the Local Government Board in reference to the large increase in the quantity of spirits consumed in the workhouse. The letter stated that medical opinion differs as to the use of alcohol as a stimulant, and it would not therefore be desirable to lay down a hard-and-fast rule nor to interfere with the discretion of the medical man in charge of cases of illness. The Guardians might, however, considerably reduce the amount of soda-water used if they employed gazogenes. It was decided to deal specially with the matter in a fortnight.

Scotch News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Golf.

Mr. George B. Key, chemist and druggist, Kirkcaldy, has won the Burgh Cleek for the third time in the tournament in connection with the Kinghorn Golf Club.

Drowned on Holiday.

A boating accident occurred at Port Appin, on Loch Linnhe, on August 24, by which Mr. George Whitelaw, a retired manufacturing chemist, at one time in business in the East-end of Glasgow, lost his life. Mr. Whitelaw's son and another lad fell into the water, and while rescuing the second boy Mr. Whitelaw was drowned.

Edinburgh and District.

Edinburgh chemists generally are complaining very much about poor trade.

Mr. C. M. Smith, chemist and druggist, is opening a new pharmacy at South Street, Bo'ness, next month.

The St. Cuthberts Co-operative Society have already four chemists' shops in different parts of Edinburgh, all in full swing.

Scotch Honey.

Reports regarding the honey season in the counties of Ross and Inverness state that the total yield this year has been well under the average. The price runs from 8d. to 10d. per lb., but it is expected that prices will be further reduced 1d. to 2d. per lb. Supers in bulk is fetching from 6d. to 8d. per lb.

The Production of Ozone.

In the Glasgow Sheriff Court on August 22, Sheriff Davidson had before him an action in which Ozonair, Ltd., holders of letters patent for the manufacture of ozonising apparatus, alleged that Mr. J. Richardson Craig, jun., 145 Bath Street, Glasgow, the patentee of an invention for the production of ozone for commercial purposes, had made and sold apparatus which in substance copied their invention. The interdict claimed was not granted by the Sheriff. He dismissed the action as irrelevant, upon the view that Section 29 of the Patents Act of 1885 was obviously enacted to prevent a party from coming into court with a general averment that something is an infringement of his patent.

Glasgow.

Messrs. Francis Spite & Co., Ltd., have opened a branch business in Dumbarton Road, near Partick West Station.

A drug-business, trading under the name of "Shearer's Drug-stores," has been opened in the new buildings opposite the Theatre Royal, Cowcaddens.

Mr. A. Hill Jeffrey, chemist and optician, Govan Road, Govan, has a nice display of optical goods in his window. Advertising matter, artistically got up, bulks largely in the same window.

The Corporation analyst, in his quarterly report, states that among the samples analysed by him were 24 of cream of tartar and 13 of tartaric acid. Two of cream of tartar were deficient in potassium hydrogen tartrate, 4 and 5.12 per cent. respectively.

French News.

(From the "C. & D." Paris Correspondent.)

INDIARUBBER DUTY.—The French Colonial Office has fixed an export duty of 40c. per kilo. net on all indiarubber exported from Madagascar and dependencies until December 31, 1908.

MOTOR ACCIDENT.—M. Tiffon, a pharmacist's assistant, of 117 rue St. Honoré, Paris, met with a motor accident last week, his right ear being almost completely torn off. M. Costes, who was with him, also received some injuries to the face.

ROBBERY OF GOODS.—Antoine Mazé, aged forty-five, was in charge of the warehouse of M. Planche, pharmacist. Aided by accomplices, he appropriated and sold on his own account some 1,600l. worth of pharmaceuticals. He was tried last week by the Eighth Chamber of the Paris Criminal Court, and sentenced to one year's imprisonment.

ESPERANTO.—M. Benoit, who was elected Vice-President of the International Scientific Esperanto Association at Cambridge last week, is the Director of the International Bureau of (Metric) Weights and Measures, situated in the Park of St. Cloud, near Paris. A full account of his interesting and unique establishment was published in the *C. & D.* some ten years ago.

MME. CURIE.—"A lady in mourning mounted, yesterday, the stairs of the Secretariat of the Institute. It was Mme. Curie, respectfully saluted by the staff, who had come to hand M. Darboux a note, which he read at the beginning of the meeting of the Academy of Sciences. It referred to the atomic weights of radium. Thus Mme. Curie piously continues, at the Academy as well as the Sorbonne, the great work of the *savant* so cruelly and suddenly snatched from his family and his studies." This is from "La Patrie" of a few evenings ago.

OPIMUM-SMOKING.—An official decree published on August 27 prohibits the opening of new opium "dens" in the French Colony of Indo-China. The decision has been taken as the result of a report submitted by the Governor-General of the Colony. He is of opinion that the prohibition, pure and simple, of opium there is not feasible, by reason of the discontent it would cause among the natives. At the same time, he recommends the progressive restriction of the drug by a gradual increase of price. This has been commenced since last June, and it is hoped to bring about a decrease in the use of opium without too great loss to the finances of the Colony, as the Government obtains an important revenue from the drug.

SUMMER DRINKS are not so popular (as a "side line" at least) with the French pharmacist as with the American druggist. Still, there are exceptions that prove the rule. Strolling one thirsty day last week up the rue St. Lazare (just beyond the station familiar to travellers *via* Dieppe), I noticed a pharmacy pushing these preparations in a granulated form. Non-alcoholic and sweetened "touring" drinks were offered in shilling boxes, each box containing sufficient to make some 24 litres (4 gals.), peppermint, quinine, centaury, lemon, and orange being the flavours. The latter two gave a "sparkling," the others a "still" beverage. The offer of a "sample penny packet," sufficient to make a litre of liquid refreshment, tempted me to step inside. A concentrated table beverage prepared from centaury, gentian, &c., a shilling bottle sufficing for about 3 gals. (a teaspoonful per litre was the direction), was also offered.

RADIUM.—The Paris "Figaro" publishes a letter from Mme. Curie, in which that eminent scientist states that she is disposed to share the opinions of Ramsay, Rutherford, and Soddy regarding the atom theory. She considers as probable that radium is an unstable element, of which the atoms are transformed spontaneously, and that one of the products of this transformation is helium. In terminating her letter Mme. Curie adds: "In any case the radium is 'a distinct chemical element' in the chemical sense of the word. It is scarcely probable that Lord Kelvin considers radium as analogous to other molecular combinations, and it is possible that the discussion at the meeting of the British Association turned on a question of

words rather than of ideas, as it is likely that atoms are all complex, and form elements of which the nature is still very little known." This expression of opinion is considered interesting, as Mme. Curie is, of course, so well qualified to give an opinion on radium, of which she was the co-discoverer.

THE WEEKLY REST ACT.—The Minister of Labour has published a lengthy and elaborate list of the trades where "rotation" is permitted—i.e., the employer may grant alternative rests to his staff on different days, the general Sunday suspension of work being thus avoided. Under this head come the manufacture of hydrochloric, sulphuric, liquid carbonic, and nitric acids, of coal tar and other dyes, of soap, soda, ether, iodine, phosphorus, liquid ammonia, binoxide of barium, oxide of zinc, caseine, celluloid, alkaline cyanides, and superphosphates, the extraction of fatty matters, and the preparation of synthetic products generally. In certain works where Sunday rest is to be the rule "rotation" is allowed for the service of the ovens; for instance, in the manufacture of animal black, chlorine, kaolin, litharge, sulphur, and ultramarine blue, and the distillation of wood. In other factories "rotation" is admitted for certain pressing portions of the work; the preparation of fatty acids on Sunday is thus tolerated in candle factories, refining in camphor works, the treatment of raw material, and autoclave and drying processes in glue and gelatin factories, and the extraction of the perfume from flowers in perfumery works.

WEIGHTS AND MEASURES.—The circular issued by the Minister of Commerce on July 23, 1904, regarding "balances de précision" having been very variously interpreted, several trade associations recently wrote asking for clearer explanations. These have been given in the form of replies to three principal questions, viz.:

1. As to the legality of unstamped philosophical balances in shops, the Minister considers that their delicacy of construction renders them unsuitable for general commercial purposes, yet he authorises them to be tolerated for test use if desired. But in such cases the inspector of weights and measures may require the owner to test these in his presence, and in case of refusal may take the necessary steps to ensure the law being carried out. Those used in many scientific laboratories, and even those "annexed to different industries, such as refineries, distilleries, pharmacies, etc.," are not subject to inspection if not used for commercial transactions.

2. Should the above test prove the balance to be inaccurate, the owner may either have it adjusted himself or hand it over to the authorities for that purpose. In the former case the scale-maker employed should put his name and mark on the balance. This rule applies to all balances used in trade since January 1, 1906—i.e., all the new instruments brought into use this year.

3. As to the use of screws, bolts, etc., for regulating, the Minister points out "that his former circular clearly stated that scale-makers could fit their apparatus with such accessories as they may judge proper to render them suitable for the purpose for which they are intended"; and that any action taken contrary to this instruction was founded on a misapprehension on the part of the inspectors.

The fact that such misapprehension existed was painfully brought home to some pharmacists. But they took their revenge wittily and gaily, one provincial pharmacist of some literary ability dedicating to the Minister, M. Trouillot, some amusing stanzas entitled "Le Ministre Ecrouphobe."

THE SALE OF SUNDRIES.—The prosecution of a prominent pharmacist three months ago by the Bandagists' Association (Chambre Syndicale des Instruments and Appareils de l'Art Medical) for the sale of trusses and other sundries, which the members of the Chambre Syndicale claimed as their sole privilege, has not been allowed to drop, and the case is to be taken to the Court of Cassation. The pharmacist, M. Canonne, was acquitted by the Lower Court, as was generally expected; but there appears to be a desire on the part of the prosecution to have a definite legal decision in the highest tribunal in France on the subject. At the annual meeting of the General Association of French Pharmacists the matter was alluded to, and the committee, on the proposal of M. Crinon, decided to take up the case for the pharmacist, in the general interest of the trade. The impression in pharmaceutical circles here appears to be that the bandagists are laying themselves open to heavy law costs without any reasonable chance of success. They

base their claims on regulations issued in 1777 and all but obsolete Articles of the Law of Germinal affecting pharmacy. Both of these have so often been set aside in favour of old-established customs and precedent, that the decision of the Court of Cassation is scarcely likely to differ from that of the Lower Tribunal. The "custom of the trade" is so evidently in favour of pharmacy in the sale of "instruments and apparatus of the medical art" that chemists look upon the case with but lukewarm interest and mild surprise. The fact that the sale of patent medicines is prohibited by law in France, but, of course, tolerated by custom, is one of the striking examples of the obsolete nature of the present laws concerning pharmacy.

PHARMACY AT TOULOUSE.—"The capital of Southern France is a fair city where every prospect pleases"—except the pharmaceutical. At least, this was my impression during a short visit there recently. Toulouse boasts no fewer than seventy-seven pharmacists, of whom forty-seven hold only the second-class certificate. Competition is in consequence very keen, and the "side lines," so often neglected by the French pharmacist, are conspicuous. Bandages, surgical accessories, etc., are main features in many drug-stores, while other pharmacists push photographic sundries. One has suppressed the exterior evidences of retail pharmacy, and styles his establishment "Analytical Laboratory." This indeed is done also in some cases at Paris and other cities. Another announces cod-liver oil at so much per litre in gigantic letters—in the South of France, as in Spain, this is a popular remedy. Several specialise and advertise sterilised milk "fresh daily." In few French towns are perfumery, soap, etc., so largely shown; while the old-fashioned style of advertising vermifuge by gigantic tapeworms preserved in spirits may be noticed in several shops, particularly in one quaint corner pharmacy near the famous Place du Capitole, where the stuffed alligator (dear to seventeenth-century alchemists) still holds pride of place. On the Boulevard de Strasbourg two opposition pharmacies are actually next door to each other. One (kept by Dr. Blot-Daurignac) is sufficiently original to deserve comment. All window-show—even the classic carboys—is entirely suppressed (I understand the proprietor is a M.D. as well as a qualified pharmacist), and the premises resemble those of a wholesale house. But large notices over the doors announce "Pharmacie de la Grande Mutuelle. Cheapest Prices in the World" ("Prix les Meilleurs Marchés du Monde"). Next door is the "Pharmacie Toulousaine," which more nearly approaches the ordinary type in its general aspect. There the conspicuous notice is "Night services personally attended to by the proprietor without extra charge." I inquired of a pharmacist (who himself does mostly purely pharmaceutical business) the reason of this excessive competition. "Oh, it's the same wherever there is a Faculty," said he. "You see, we have a Mixed Faculty here at Toulouse, another at Bordeaux, and a Superior School of Pharmacy at Montpellier—three big schools on one railway line of about 350 miles in a region mostly agricultural. Well, the young fellows all set up in the town. Of course," he added with a modest pride, "Toulouse is an exceptionally agreeable place to live in, as you have seen for yourself. So here they remain. We have a scientific society, the Pharmaciens de Sud-Ouest, as well as a business syndicate, and Toulouse is an artistic, musical, and commercial, as well as a scientific centre. No; I'm afraid the suppression of second-class certificates won't diminish the overcrowding much, here at least, so long as the Faculty exists and the life is so pleasant." Life seemed busy as well as pleasant—for customers kept coming in—so I discreetly retired, wondering if this evidently satisfactory business had not something to do with his philosophical acceptance of the *status quo*. To cope with the "mutualist" difficulty, the "Toulouse Pharmaceutical Syndicate for the Supply of Medicaments to Friendly Societies" was formed in 1899, and sixty out of the seventy-seven pharmacists belong to this body. On the other hand, the Friendly Societies have started a pharmacy of their own in the rue des Gestes—the "Pharmaceutical Union of the Friendly Societies of the Haute Garonne"—and engaged a qualified pharmacist as manager.

COSTA RICA imported drugs valued at 3,963*l.* from the United Kingdom during 1906.

Colonial and Foreign News.

PHOTOGRAPHIC BUSINESS IN POLAND.—A message from Warsaw to the *Torg. Prom. Gazeta* says that the local "Phos" photographic apparatus factory has had to close operations because of the small demand for its goods. The only factory for producing photographic paper (P. Lebedsnick), on the other hand, has begun working with two shifts. Orders have been received from Berlin, Vienna, London, and Paris. The local product has completely ousted all foreign photographic paper from the Polish market, as also partly from the Russian Empire outside Poland.

NEW CHILIAN NITRATE FIELDS.—A Renter's cablegram from Santiago de Chile, dated August 25, states that the Government is to establish a mortgage bank for the opening up of new nitrate fields. To this end short dated debentures will be issued in gold with a strong sinking fund, and specially guaranteed by a quota payable for each quintal of nitrate exported, which will be levied by the Government at the same time as the export duty. This new institution will start with a working capital of 5,000,000 pesos furnished by the Government as a special guarantee fund.

GERMAN PHARMACEUTICAL SOCIETY.—Two weeks before the annual meeting, the balance-sheet for 1906 and budget for 1907 of the German Apotheker Verein has been submitted to its members. The balance-sheet for 1906 closes with a surplus of 52*l.* 12*s.* 4*d.*, the income from all sources amounted to 4,116*l.* 0*s.* 3*d.* Among the expenses figure: 1,317*l.* 6*s.* 0*d.* for the Society's journal, 353*l.* 3*s.* 1*d.* for the annual meeting, 90*l.* 19*s.* 0*d.* for the analysis of new preparations, and 837*l.* 18*s.* 1*d.* for office expenses. In the budget for 1907 there is a significant item of 100*l.* for expenses "to refer situations to apprentices," which are now termed "Eleven" instead of the commoner "Lehrling."

A MANUFACTURING DEGREE.—A common decree of the Minister for Education, Commerce, and of the Interior in Austria demands a special proof of efficiency in the preparation and sale of poisons, pharmaceutical preparations, and mineral waters outside of pharmacies. In future applicants for a concession to manufacture poisons, articles or preparations used for medical purposes, and artificial mineral waters will, besides proving that they have spent two years in a chemical laboratory, have to produce a certificate showing that they have attended the highest class of the technical chemical division at one of the State technical schools. Sellers of such medical preparations and artificial mineral waters which are not a monopoly of the apothecars, besides possessing a sufficient general education, will have to show proof of a two years' practical experience.

THE GERMAN UNION OF LOCAL SICK FUNDS, representing 235 Funds and about 4,300,000 members, held their annual Conference at Mannheim on August 19. One of the burning topics of the Conference was the new Imperial Pharmacy Bill, and on the motion of a Charlottenburg pharmacist a resolution was adopted to the effect that a comprehensive reform of the pharmacy system is urgent, and that, being the largest purchasers of medicine in Germany, the Union should be asked to co-operate in any suggested alteration. The Government proposals were condemned, and the Union submitted that the only form of monopoly beneficial to the general community would consist in the abolition of the old transferable concessions and in the establishment of municipal or communal pharmacies. This could be accomplished by the aid of State credit, and personal concessions would be regarded as transitional towards municipalisation. The Union held further, that apart from the problem of the form of pharmacy concessions, legislation should be introduced to deal uniformly with articles sold throughout the Empire in pharmacies and with pharmacy regulations. Representatives of local Sick Funds should be appointed on the Commission which fixes the prices of medicines; communes, medical organisations, Sick Funds, and those awaiting pharmacy concessions should decide disputed cases regarding the establishment of new pharmacies; and pharmacists should be legally compelled to dispense on credit any genuine medical prescription, in so far as security for the payment exists by the deposit of funds with an official authority.

Australasian News.

The fullest information regarding the Australasian drug-trade and pharmacy is given in "The Chemist and Druggist of Australasia," copies of which can be obtained at 6d. each, post free, from the office of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Note.—"The Chemist and Druggist" is regularly supplied by order to all the members of the following, among other societies:

Central Pharmaceutical Association, N.Z.
Otago Pharmaceutical Association, N.Z.
Pharmaceutical Society of New South Wales.
Pharmaceutical Society of Queensland.
Pharmaceutical Society of South Australia.
Pharmaceutical Society of Tasmania.
Pharmaceutical Society of Western Australia.

The Commonwealth.

CUSTOMS TARIFF DECISIONS.—During July the following decisions were announced by the Commonwealth Customs authorities: *Free*—Lethol-red (a coal-tar dye), oil of mixed spice (a non-alcoholic blend of essential oils for flavouring), first-aid snake-bite outfit, centrifugal apparatus (for examination of milk, blood, urine, etc.). *20 per cent.*—Convergimeter (a sight-testing appliance), Excelsior matrix powder, containing calcium carbonate, starch, etc., polariscopes. *15 per cent.*—Rotunda I.R. douches, malto-glycerol (a mixture of malt extract and glycerin). *2d. per lb.* or *15 per cent.*, whichever higher—Antilexion (an ink eradicator). *6d. per gal.*—Gum rhusol (a vegetable oil thickened with resin). *1d. per lb.*—Spirit colour (non-alcoholic), consisting of caramel preserved with sulphurous acid.

PROPRIETARY MEDICINES.—In the House of Representatives on July 17, Mr. Thomas asked the Minister of Trade and Customs whether any patent or proprietary medicines imported have had the component parts thereof stated on the label or box; and, if so, would he name the respective medicines which have complied with the regulations? Sir William Lyne replied: It is provided in the Commerce Act that no trade description shall be prescribed which discloses trade secrets of manufacture or preparation, unless in the opinion of the Governor-General the disclosure is necessary for the protection of the health or welfare of the public. All medicines imported are, however, being carefully examined to test the truth of the trade description, and to ascertain whether they contain deleterious substitutes. He then quoted the regulations under the Commerce Act. (See also *C. & D.*, August 17, p. 294.) On July 23 Mr. Thomas asked if a Bill would be introduced to compel importers of patent medicines to describe the materials from which their goods were made. The Minister asked that the question might be deferred till next day.

New South Wales.

SHELDON DRUG CO., LTD., has been registered, with a capital of 30,000*l.*, in 30,000 shares of 1*l.* each. The objects of the company are to acquire the business of the Sheldon Drug Co., as at present carried on in Australia, South Africa, and New Zealand. The registered offices are at 15 O'Connell Street, Sydney.

CHEMIST ACQUITTED.—Mr. S. B. Williams, chemist, 769 George Street, Sydney, who was charged with receiving stolen goods belonging to Elliott Bros., Ltd., was tried at the Quarter Sessions and acquitted. The defence was a denial that any arrangement had been made with the warehouseman Sullivan to alter orders sent to Elliott Bros. or send out more expensive drugs than were ordered. (See *C. & D. Supplement*, June 29.)

STRYCHNINE FOR QUININE.—Mr. R. C. Lester, chemist, WallSEND, who is alleged to have supplied strychnine hydrochloride for quinine, and so to have caused the death of a woman who took the medicine, was tried at the Maitland Quarter Sessions on a charge of manslaughter (see *C. & D.*, August 3, p. 205) and acquitted. The case for the defence rested mainly on the fact that no powdered strychnine hydrochloride had ever been in stock at the pharmacy. The jury, without leaving the box, returned a verdict of not guilty. The Judge remarked that it was evident that there had never been any strychnine hydrochloride in the shop, but he had let the case go to the jury for the better satisfaction of all parties.

New Zealand.

THE PURE FOOD BILL, 1907, has been introduced into the New Zealand House of Representatives, and embodies many of the ideas of the Pure Food Act of Victoria. It gives large powers to control the sale of foods, and includes under its provisions drugs which are defined in Clause 2 as meaning "medicine whether for internal or external use." Power is given to seize drugs that are believed to be not in accordance with the law and regulations, and to take samples when suspected. By Clause 15 any food or drug shall be deemed to be adulterated when anything is mixed with it to diminish its beneficial properties, when anything has been extracted or omitted from it, if it contains or is mixed with any substance of lower commercial value, or if it does not comply with the standard prescribed by regulations under the Act. Clause 12 defines the offences under the Bill: (1) Selling an adulterated food or drug without fully informing the purchaser at the time of the sale of the nature of the adulteration; (2) selling any food or drug bearing any false or misleading statement, word, brand, label, or mark purporting to indicate the nature, quality, strength, purity, composition, origin, age, or proportion of the article contained in the package or of any ingredient thereof; (3) selling any food or drug containing any substance the addition of which is prohibited by regulations; (4) selling any food or drug containing a greater proportion of any substance than is permitted by the regulations; (5) selling any food which contains methyl alcohol, or which, not having paid Customs or Excise duty, contains more than two parts of proof spirit per cent. The penalty is fixed at a fine not exceeding 50*l.* for the first offence, not exceeding 200*l.* for any subsequent offence, but if the offence is wilful the penalty, even for a first offence, is made not to exceed 200*l.*, or three months' imprisonment. Clause 13 is as follows:

It shall be no defence in any prosecution for an offence under the last preceding section that the offence was neither wilful nor negligent, or that the defendant had no knowledge or means of knowledge that the sale of the article sold by him constituted an offence against this Act.

Clause 14 provides that a written warranty may be a good defence. But it is provided that no warranty or other written statement shall be a defence unless it is given or made in New Zealand in respect of a sale in New Zealand by, or on behalf of, a person resident there, or an incorporated company carrying on business there. Power is given to the magistrate to order the publication in the newspapers of an advertisement of the name and occupation of any person who has been convicted of an offence against the Act, with the nature of the offence and the penalty. Clause 26, which gives the Governor power by Order in Council gazetted to make regulations, among other things (a) prescribing the standard of strength, weight, quality, or quantity of any food or drug or of any ingredient or component part thereof; (b) prohibiting the addition of any specified thing, or of more than the specified quantity or proportion thereof, to any food or drug; (c) prohibiting any modes of manufacture, preparation, or preservation of any food or drug; (e) prescribing the mode of labelling food or drugs sold in packages, and the matter to be contained or not to be contained in such labels; and that any such regulation may be made applicable either to foods or drugs generally or to specified foods or drugs only. The Bill passed the second reading on July 12.

Victoria.

MR. H. T. TOMPSITT is to visit Melbourne and remain during the rebuilding of the firm's warehouse in Flinders Lane. The premises will be extended to six storeys, and the work is expected to cost some 20,000*l.*

THE FORTIETH ANNIVERSARY of the the firm of Felton, Grimwade & Co., Melbourne, was celebrated on July 2 by a dinner given by Mr. F. S. Grimwade to all his employees who had been over twenty years in the service of the firm. Twenty-eight sat down to dinner at the Vienna Café. Mr. T. H. Cowley, who had been with the firm from its foundation, proposed the health of Mr. F. S. Grimwade. In his reply, Mr. Grimwade announced that his youngest son, Mr. W. Russell Grimwade, had been admitted to a partnership from that date.

Canadian News.

(From the "C. & D." Correspondent.)

A SAD ACCIDENT has occurred in the establishment of Evans and Sons, Ltd., branch of the National Drug and Chemical Co. in Montreal, whereby William Lyons was so badly burned by the explosion of a chemical bath that he has since died. The verdict of the coroner's jury was to the effect that the man came to his death by his own imprudence, as he had been carefully warned as to the dangerous nature of the work, but it would seem that he turned a valve the wrong way and thus caused the explosion.

DR. JOSEPH LEDUC, one of the best-known physicians and druggists of Montreal, died suddenly at his summer home at Dorionville, Quebec, on August 11. Dr. Leduc, after practising medicine with marked success for a few years, started in the drug business, and at the time of his death had four drug-stores in various parts of the city of Montreal. He himself looked after the establishment on Chaboillez Square, where he was known to everybody in that section of the city, and proved a friend to all in time of trouble. He was also associated with Dr. Archambault in the Vaccine Institute, founded some years ago to produce vaccine for use in the city and throughout the province. After Mr. Lyons (recently deceased) started his cutting business in Montreal some years ago, Dr. Leduc followed suit, and, next to Mr. Lyons, was the principal cutter in the city.

CULTIVATION OF GINSENG.—Dr. J. A. Buchan, of "L'Original," advocates extensive planting of the ginseng plant in Canada, where he says it grows "as easily as a field of potatoes." There has been a steady trade in ginseng between America and China for the greater part of the last century, but until recent years the trade has been altogether in the wild root, which at one time grew plentifully from Canada to Florida. The clearing of the forests, however, and the reckless digging of the roots at all seasons of the year has almost exterminated the plant, and consequently the trade in the wild root has greatly fallen off, but as a consequence cultivation of ginseng has been created. Early efforts to cultivate appear to have been failures, but the high price is now an incentive, and Dr. Buchan recommends the Canadian farmers to take up the industry.

LAYING IN STOCK.—The druggists of Montreal have recently been the victims of a well-organised gang of burglars. The store of Mr. H. Lalonde, at the corner of St. Catherine and St. Elizabeth Streets, was robbed of about \$200 worth of goods. Detectives who visited the premises declared that it was absolutely the neatest burglary done in the city for a long time. The visitors dealt as carefully with the glass jars in the interior as the proprietor could have done himself. Jars, boxes, and cases had all been visited in turn, and small quantities of their contents abstracted. The work must have been executed by individuals possessed of a knowledge of drugs, and, as one of the detectives remarked, "It looked as if the thieves intended to set up as druggists." Mr. Moisan, at the corner of St. Lawrence and Sherbrooke Streets, has also been visited, and \$150 worth of drugs removed. No clue to the burglars has been obtained.

Information Wanted.

Inquiries for the names and addresses of manufacturers, or other trade information, not traceable by reference to the advertisement-pages of "The Chemist and Druggist" and the "C. & D. Diary," or not filed in our private register, are inserted here free of charge. Postcard or other replies to any of the subjoined inquiries (addressed to the Editor "The Chemist and Druggist," 42 Cannon Street, London, E.C.) will be esteemed.

- 208/71. Who are the makers of coltsfoot oil?
- 206/60. Who are the makers or agents for tryptogen?
- 209/8. Who are the makers of cellotropine (arbutin-benzoyl ether)?
- 208/16. What is Sir Lauder Brunton's powder? If a proprietary article, where can it be obtained?
- 209/19. Who manufactures or sells artificial butterflies, made of paper or fabric, for window decorations?

American Notes.

(From the "C. & D." Correspondent.)

A CARBOLIC ANTIDOTE.—Dr. Seneca Powell, professor of chemistry, has died at Greenwich, Connecticut, after an illness lasting three years. His malady dated from the time when he gave the medical profession an antidote for carbolic-acid poisoning. To prove that pure alcohol was an antidote, he frequently swallowed the acid before his medical classes, thus undermining his constitution.

THE DECLINE OF DRUGS.—Dr. J. N. Hurty, secretary of the Indiana Board of Health, recently read an address before a pharmaceutical meeting, in which he expressed the opinion that the drug store is gradually going out of existence, and that the same fate is being experienced by the drug-using physician. Dr. Hurty bases his statement and prediction upon the alleged fact that the modern physician uses very few drugs, and is taught by the schools to depend less and less upon them. Nevertheless, the facts gathered by the statisticians in Washington indicate that the consumption of drugs is not only just as great as ever, but is increasing much more rapidly than the increase in the population would warrant.

A SETTLEMENT LOOKED FOR.—It looks as if the famous Loder anti-conspiracy suit will be settled out of court. It will be remembered that Loder, a Philadelphia cutter, brought an action against the retailers and wholesalers of his city for refusing to supply him with goods. The jury awarded him damages of \$20,000, which, under the Sherman law, could be trebled. A new trial was ordered on a technicality, however, and this will be held in a few months if a private settlement is not made in the meantime. Both parties are anxious to agree, and it is quite likely that damages of \$15,000 will be decided upon out of court. It was the Loder suit which really formed the basis of the Government's complaint against the N.A.R.D.

THE PHARMACISTS OF MINNESOTA are carrying on an interesting fight. At the last session of the State Legislature a law was enacted permitting registration without examination to druggists who had had fifteen years' "experience" in drug stores, and who had lived at least a year within the borders of the State. No fewer than five hundred candidates have applied for registration under these conditions. The State Pharmaceutical Association asked for and secured a temporary injunction restricting the Board of Pharmacy from registering these individuals, on the ground that the public health and welfare were in danger. Upon trial, however, the judge dismissed the injunction, and the case has now been appealed to the Supreme Court by the State Association.

AGAINST THE LAW.—About two dozen of the State pharmaceutical associations have held their meetings during recent weeks. In nearly every case resolutions have been adopted calling upon the National Congress so to amend the Sherman anti-trust law that it will no longer prevent retailers from combining their interests in an effort to protect themselves against commercial extinction. It is held that the Sherman law, in considering a combination between small retailers to be quite as illegal as a combination between monopolistic manufacturers, is perverting the ends of justice. All of this, of course, has reference to the decree recently issued against the N.A.R.D. at Indianapolis, enjoining it from the further use of any plans to prevent the cutting of prices on medicines.

A CHEMIST FINED.—A Litherland chemist was fined 40s., and costs, at Liverpool on August 27, for selling prussic acid without registering the sale, as required by law. He supplied the acid on order to a branch shop, believing it was wanted to poison a dog, but it afterwards transpired that the purchaser used the poison to commit suicide.

ARTIFICIAL CAMPHOR.—It is reported from France that a new company, known as the Société le Camphre, of 68 Boulevard de Strasbourg, Paris, is to acquire various patents for the production of synthetic camphor, including those of MM. Dubose and Behal. A factory has been secured at Bonnières, and work is to be "commenced in the course of a few months." The old story is circulated that the plant will be capable of producing three to six tons of artificial camphor per day!

The Week's Poisonings.

FATALITIES from poisoning to the number of thirteen have taken place during the past week, five being misadventures. Dr. Cyril Waldron Shaw (42) was found dead at his lodgings in the King's Cross district, having taken an overdose of morphine.—Another medical man, Dr. Edmund Antrobus, of Great Malvern, died from an overdose of narcotic (administered by injection) which he had taken to induce sleep.—Henry Judd (54), an inmate of the Portsmouth Workhouse, died from an overdose of chlorodyne, self-administered.—Potassium cyanide in solution was taken by Jessie Mabel Langridge (47), a school teacher at Tufnell Park, who was depressed.—Amelia Payne (54), of Birmingham, and Jane Ludwick, of Birkenhead, each used oxalic acid for the purpose of suicide.—At Newcastle, co. Down, John Adams (77) drank belladonna liniment in mistake for medicine.—Mrs. Kate Common, the widow of a Greenwich draper, was found dead at the foot of Beachy Head. She had taken prussic acid.—At Clapham, on August 23, an inquiry was held into the death of Alfred B. Wilkinson (33), formerly traveller for a firm of aerated-water manufacturers, and who had resided at Herne Hill. Evidence was given by George Robert Moore, chemist's assistant, of 322 Kennington Road, S.E., who said he had known deceased, he having been employed by witness's firm about ten years ago. Deceased called at witness's business premises a few days before his death and asked for a quantity of Scheele's hydrocyanic acid, his excuse being that he was to make a special cough-mixture for another chemist. Witness gave deceased 3 drs. of the acid. In reply to the Coroner, witness said deceased did not sign for it, as it is not the custom to do so when obliging another chemist. The Coroner: That, I suppose, would only apply to qualified chemists?—It is a case of the wholesale supplying the manufacturing chemist, who is not always qualified. The Coroner: Surely the person supposed to make it and be responsible would be qualified, otherwise anyone could do the same?—They would not be able to retail it unless qualified. Further evidence showed that deceased was found lying on a seat on Clapham Common. A *post-mortem* showed that death was due to prussic-acid poisoning.—Hydrochloric acid caused a misadventure and a suicide. The misadventure occurred to William Hart, of Tverton, Bath, who drank the acid in mistake for spirit of camphor. The suicide was at Clerkenwell, the poison being taken by Edward Chisholm (50), a cabinet-maker. The acid was obtained from Mr. A. E. Lawson, chemist and druggist, Exmouth Street, who stated that he not only labelled the bottle "Poison," but, it being a spirit-bottle as sold by publicans, he took the precaution to paste blue paper around the bottle to prevent the possibility of a mistake. For this thoughtful precaution Mr. Lawson was highly commended by the Coroner.—Mary Ann Baird (54), wife of a Glasgow labourer, died after drinking a quantity of naphtha in mistake for beer.

An unusual case of poisoning occurred at the Guards' Depot, Upper Caterham, where Private William McCormac (18), of the Royal Army Medical Corps, took alpha eucaine. Dr. Pritchard, of Caterham, said alpha eucaine was very rarely used, except as a local anæsthetic, and was generally injected subcutaneously in small operations. Its effect upon the body would be to cause collapse. The Coroner having remarked that he had never heard of eucaine, the witness said it was an analogous substance to cocaine, but was supposed to be not so poisonous, and the after-effects were less unpleasant than cocaine. It was not in the B.P., and had only been five years on the market. Surgeon-Major P. H. Whiston, Irish Guards, said he had no eucaine in the surgery. He knew it as being used for minor operations, but it was not used so much as it used to be. Beta eucaine was used more often than alpha eucaine, but he had never heard of anyone taking it. He had no doubt the deceased died from the effects of taking poison. They had had no eucaine in the surgery since McCormac joined the depot. The Coroner: I suppose it is sold at all chemists' shops?—I expect so, but there is nothing on the bottle to show where it was purchased. The jury returned a verdict of suicide during temporary insanity.

Westminster Wisdom.

(From our Parliamentary Representative.)

PATENTS AND DESIGNS BILL.

When this Bill was in Committee in the House of Lords on August 23, the Marquis of Salisbury moved the omission of Clause 7, which, he said, gave to the Comptroller, who was not a judicial officer, the extraordinary power of refusing an application for a patent if he thinks such patent has been anticipated. The Lord Chancellor explained that there were such things as sham patents and an abuse of the system of granting patents which the Bill was intended to put an end to. These bogus patents were taken out with the knowledge that they had been anticipated, but because the original patentees were poor and unable to fight for their rights they were induced to come to a compromise and had to forgo the advantage that should be theirs. If the Comptroller was satisfied that the patent had been wholly or specifically claimed in a previous specification he could refuse the claim. The Comptroller was a skilled officer, and he had had this power since 1883 in cases where there was opposition, and there was an appeal to the law officer. The amendment was then withdrawn.

BRITISH COMMERCIAL TRAVELLERS IN NATAL.

A question was asked by Mr. Branch as to whether the Natal Government proposes to introduce a Bill whereby commercial travellers representing British manufacturers will be taxed 25*l.* per annum for every firm represented by them; and whether, seeing that such legislation would entirely exclude from Natal four-fifths of the travellers who thus earn a living in that colony, the Colonial Office can make such representations as may be necessary in their interests. Mr. Churchill said the Secretary of State was aware of the proposed legislation, and had received a number of representations that it would be seriously prejudicial to British trade. He had brought these representations to the notice of the Governor of Natal by telegram.

Personalities.

MR. A. T. LONG, pharmaceutical chemist, Bognor, has been appointed a magistrate for Sussex.

MR. HERBERT E. COOPER, chemist and druggist, has resigned his position on the representative staff of Messrs. Burroughs Wellcome & Co., and is to represent Messrs. William Toogood, Ltd., on the South Coast and in the West of England.

We have had a call from Mr. Triantaphyllos Ladakis, Professor of Pharmacy in the Syrian Protestant College at Beyrout. Professor Ladakis, it will be recollected, has contributed to *THE CHEMIST AND DRUGGIST* interesting accounts of the College and the state of pharmacy in Beyrout. He has been making a tour of the educational establishments of the Continent, and after a short stay in London intends to spend a year in the United States, most of the time at the Philadelphia College of Pharmacy. Professor Ladakis has been instrumental in imparting sound instruction in pharmacy and the allied subjects—the course occupies four years—to a large number of Eastern pharmacists, and the influence for good which this education gives in the country cannot be overestimated. Professor Ladakis is a Greek, and speaks fluently five or six languages.

Business Changes.

MESSRS. HEPPLE & Co., pharmaceutical and foreign chemists, of Haymarket and Piccadilly, London, W., are opening a new branch at 38 Chandos Street, W.

MR. W. H. HEWETT, chemist and druggist, of Cowes, Isle of Wight, has taken over the business of Foster & Else at 52 King's Road, Brighton, formerly belonging to Mr. W. R. Cook, pharmaceutical chemist.

MR. A. T. CROOKS, chemist and druggist, of St. Helens, has opened a new business, "The Park Pharmacy," at 97 Anfield Road, Liverpool, with fittings by Messrs. Ayrton Graham, Ltd., Liverpool.

Trade Notes.

CONTREXÉVILLE WATER.—The Apollinaris Co., Ltd., 4 Stratford Place, Oxford Street, London, W., have reduced their prices for Contrexéville water (source Pavillon), and are giving the particulars in our advertisement pages.

THE OSTRICH which has just been hatched at the Crystal Palace is being reared in a Hearson's "Foster-mother" of special dimensions. The egg was hatched in forty-three days by means of a Hearson's incubator. Spratt's Patent, Ltd., Fenchurch Street, E.C., are the sole agents for these incubators and foster-mothers.

LANTERN TOILET-PREPARATIONS.—We have received from Messrs. Thomas Christy & Co., 4, 10, and 12 Old Swan Lane, Upper Thames Street, London, E.C., a collection of toilet-preparations which are classed together as the "Lantern" series. The name of the series originates from the



Chinese lanterns which form part of the general design of the label. The labels of the whole series correspond in style. The ground is pale green, with floral and lantern decorations in pink, red, and gold. Each label is, however, *sui generis*, so that it is exactly adapted for the pattern of bottle or box to which it is affixed. Taking first the boxed articles, we have violet oatmeal, almond-meal, fullers' earth, violet powder, water-softener, and foot-powder in round cardboard canisters which are easily opened by means of a string guide. Then in the class of boxed goods may be included

shampoo-powder; each powder is in an envelope, six being packed in a box. The box and envelopes have the same lantern-design indicated above. The illustration given here shows the style, the space being intended for the address of the retailer, arrangements having been made for adding this when certain size orders are placed. The second illustration is representative of the liquid toilet-preparations included in the series. It will be seen that the label is specially adapted for the bottles, as it is in every case. Sprinkler-top bottles are used likewise for bay rum, liquid paraffin, eau de quinine, and brilliantine. In the case of glycerin and cucumber and cucumber and benzoïn opal bottles are employed, and Messrs. Christy add, in an explanatory note, that "real essence of cucumber" is used in the manufacture of all their cucumber liquids. The current catalogue gives particulars as to prices (these are quite moderate), but any chemist who would like to go further in the matter should ask to see specimens of the packages and labels.



MILK HUMANISER.—Messrs. S. Maw, Son & Sons, 7 to 12 Aldersgate Street, London, E.C., in the No. 11 Milk Humaniser have produced an improved apparatus for modifying cow's milk to resemble human milk. It is a simple but ingenious arrangement for removing a part of the lower layer of a pint of milk from which the cream has risen so as to alter the proportion of fat in the residual

milk. Sugar of milk is added, a measure being provided to ensure the correct quantity being used. The apparatus sells at 5s., and with each full directions are given.

SANITAS SHEEP-DIP.—This is one of the many products of the Sanitas Co., Ltd., Locksley Street, Limehouse, E., and has been approved by the Board of Agriculture and Fisheries for sheep-scab in Great Britain in the proportion of one part of dip to eighty parts of water. The dip possesses pronounced germicidal and disinfecting properties, its efficiency as compared with pure carbolic acid being between 8 and 9.

CONTREXÉVILLE "PAVILLON."—Referring to the note in this column last week, Messrs. Ingram & Royle, Ltd., 26 Upper Thames Street, London, E.C., inform us that they have now completed arrangements for supplying Contrexéville water at reduced prices. These are given in an advertisement in this issue. The water is imported direct from the spring.

Science in Chemical-works.

By P. LEUTHARDT THORNTON.

THERE are many causes which materially contributed to the development of chemical industry abroad, not the least important being the early recognition that it is not advantageous to concentrate the purely scientific and the technical sides of the industry in one person. It was argued, and this rightly, that, in consideration of the enormous task each of these branches of chemical science had to perform, it would be impossible for one person to carry out the duties of both. When, therefore, the foreign manufacturer fully realised that chemical science could be made subservient to commerce he proceeded to create two distinct departments. For purely scientific purposes he established research-laboratories to investigate the improbable. He equipped them with the best of appliances, collected all the old and new chemical literature obtainable, and acquired from the various countries particulars of all patents applied for or taken out by others. In this manner he was able to overlook the situation continually, form new ideas, direct his scientists, and in time became an expert, twisting published materials into shape and using every advanced thought for his own benefit. Any new reaction discovered, any observation made offering possibilities of further development, or an idea likely to be useful in the far future, the foreign manufacturer at once patented whenever possible, and in this manner created a fruitful source of supply entirely his own and for which he has paid heavily.

The progress of a laboratory of research would necessarily be slow, and its cost great, but it was felt that its existence was an absolute necessity and that without it no real progress could be made. Of course it would at no time be an easy matter to find the proper men who, besides being capable of forming new ideas, had the required daring to follow them up and the courage to face failure. The work carried on was to be in every way thorough, and no rule-of-thumb methods were to be applied. When it was decided that a new invention offered commercial possibilities it was worked into proper shape, the results tested, and a complete report made out for the technical department.

The staff of technical chemists would consist of men who, besides being well read and up to date, preferred production to pure scientific investigation, had the required knowledge of machinery, and were able to control and educate labour. They would be thoroughly acquainted with the peculiarities of manufacture and its attendant difficulties.

At first a newly invented product would be produced on a small scale, in a laboratory specially reserved for such purposes, and which would be equipped with such kinds of small working-plant as were adaptable, or, failing this, new and suitable apparatus would be specially purchased. A laboratory of this kind would offer every opportunity for the study of the plant needed to provide for the market, it would prevent costly errors in the subsequent building operations, and finally would give initial experience of the process before operations were conducted on a large scale.

Medical Gleanings.

Theosine-sodium Acetate as a Diuretic.

DR. H. CAMPBELL, in the "Lancet," gives a remarkable instance of the diuretic action in dropsy of theosine-sodium acetate when combined with digitalis. In regard to the administration of theosine-sodium acetate Dr. Campbell says it should be given in cachets in doses of from 3 to 8 grains every four hours. Its effects should be carefully watched, as the drug is apt to irritate the stomach. Five-drop doses of tincture of digitalis were given.

Intertrigo Applications.

OBESSE persons are very often troubled with intertrigo, or chafing, especially in the inguinal regions. For this a writer in the "Medical Press" recommends in simple cases:

1. Eau de Cologne ... 6 oz.
- Tincture of iodine ... 2 oz.
2. Liquor carbonis detergen. ... 4 dr.
- Eau de Cologne ... 6 oz.
3. Ichthyol ... 2 dr.
- Water ... 4 oz.

Either of these to be applied as a lotion.

A Cause of Corneal Ulcer.

A "LANCET" CORRESPONDENT, writing about the value of the corneal reflex as a test of chloroform anaesthesia, says: "My own experience of chloroform anaesthesia has led me to regard the corneal reflex as of little value as a guide to the measure of anaesthesia. The beginner always seems to attach special value to it, and, if permitted, worries at the cornea as though it were an electric bell-push until in self-defence (?) it refuses to respond. Apart from the mechanical injury which may be inflicted by the finger, I have known corneal ulcers of extensive character produced by the chloroformist allowing his finger to become moistened with chloroform and then applying it all unconsciously to the patient's conjunctiva."

Alopecia Areata.

THE obstinate nature of alopecia areata is well known, so that no excuse is offered for reproducing the following method of treatment, which is contributed to the "British Medical Journal" by Dr. L. Leon-James, Methven, N.Z. He says:

After trying every remedy I could find in print, I was successful on three occasions in curing the disease with the following ointment rubbed well into the patches night and morning:

- Chrysarobin ... 3ij.
Hazeline cream (B. W. & Co.) ... 3j.

Mix. Heat to 300° F. till dissolved, and stir till cold.

I tried this ointment much weaker at first, but met with no success until I gave it in this strong form.

Bottle-makers' Cataract.

CATARACT is very frequent in bottle finishers, due to the excessive heat to which the eyes are exposed while at work. It can be prevented by the men wearing goggles. Dr. W. Robinson, in a paper read before the Oxford Congress of Eye Surgeons ("British Medical Journal"), states that a suggestion he made that bottle-finishers should wear dark-coloured spectacles or goggles while at work has produced a belief among the men that the glasses have done much good. Glass allows only 30 per cent. of the heat rays to pass through it, and, if dark-coloured, also intercepts many of the light rays. At first there was considerable difficulty in wearing the goggles, owing to the condensation of the moisture from the excessive sweating of the men while at work, but by the use of "Lasin" pencils, made of a kind of soap, this drawback has been overcome. At one works the goggles are dark-blue, and at the other dark-smoked.

Snake-bite Treatment.

REFERRING to the treatment of snake-bite, Professor Riehl, of Vienna ("Lancet"), states that the best treatment must aim at destroying the poison at the part bitten and at preventing its absorption into the system. Several methods, such as cauterisation, bleeding, compression, and the application of a ligature, have been advised for these purposes. Professor Calmette's antitoxin against cobra and rattlesnake poison has the disadvantage of being specific for these poisons

only. Extensive trials have now been made by Professor Calmette and Professor Paltauf of methods to prevent poisoning by treating the affected part with a solution of chloride of calcium. A solution of one part of this substance in 12 parts of water is to be diluted before use with six times as much water, and from 10 to 12 c.c. is to be injected by means of a Pravaz syringe around the bite, so that the poison may be neutralised. This simple method is said to be efficacious for all sorts of snake-poison. The earlier treatment is instituted the better the result. Professor Riehl has had small packets put up by the pharmaceutical chemists, containing a Pravaz syringe, two sterilised injection needles, a small quantity of the solution, and a small mixture glass, with instructions for using the whole packet. It is sometimes more handy to use not the solutions, but the solid chloride of calcium in pastilles.

Administering Phosphorus to Children.

PROFESSOR MANCHOT ("British Medical Journal") has been endeavouring to find a satisfactory way of administering phosphorus to children, a solution of the element in cod-liver oil, phosphates, and hypophosphates being, he states, useless for nutritive purposes. Finally he hit upon the use of oil-free hemp-seed, which he finds contains, after grinding and drying, an organic combination that corresponds to 1.5 per cent. of phosphorus. He uses the Russian hemp-seed. His clinical experiences with a "soup" or decoction of hemp-meal were highly satisfactory. The soup is prepared by mixing 100 grams of crushed hemp-seed (from which the oil has been extracted by benzine) in 1 litre of water and heating it gently until the quantity has diminished to 250 c.c. The mixture should not be allowed to boil. The fluid is then passed through a fine sieve and the residue pressed by means of a wooden spoon, and, lastly, the fluid is filtered through a fine cloth or thin filter paper. He gives from 30 c.c. to 50 c.c. of this soup to children, according to age, in the ordinary food. Two or three days after giving the "soup," without changing the diet, the weight begins to increase, and within a week the whole appearance of the children becomes altered; the pallor disappears, the face becomes rosy, and the muscles become firm. He states that the action is more rapid than he has ever seen in cod-liver oil and phosphorus mixture.

Inebriety Treatment.

DR. J. M. G. BREMNER, medical superintendent of the Dodson Nursing Home for Inebriates, Norwich, gives in the "Lancet" particulars of the treatment adopted at the Home. As the results are stated to have been highly satisfactory, we give a note of a case of a man who had been a chronic alcoholic for years and had a distinct family history of hereditary alcoholism. I allowed him, says the doctor, to have a certain amount of his favourite beverage, as he was drinking heavily on admission, and started him at once on one teaspoonful doses, with about two ounces of water added, every two hours from 9 A.M. till 9 P.M., of the following tonic:

- Ammon. chlor. ... gr. j.
Aloin. ... gr. ij.
Tr. cinchon. co. ... 3ij.
Viburnum cordial ... 3j.

Being in a shaky condition I found that an occasional dose of a mixture composed of ammon. chlor., tinct. cinchon. co., viburnum cordial, tr. capsici, and ext. kolæ liq. was very beneficial. I also gave him four times a day, at intervals of four hours, 5 minims of the following hypodermic injection:

- Daturinæ sulph. ... gr. j.
Strych. sulph. ... gr. ij.
Acid. boric. ... gr. v.
Aq. dest. ... 3iv.

During the first ten days I increased the injection gradually to double this quantity, no unfavourable symptoms being present. I am of opinion that datur. sulph. is much better than atropine, patients suffering far less from their eyes and complaining less of dryness and parched throat. The injections and tonics were continued for three weeks, and during the fourth week of treatment I reduced the number of tonics and number and quantity of injections, until at the end of the fourth week—i.e., the last day of treatment—he received only two doses of tonic and one 5-minim dose of injection. Insomnia was treated by means of veronal. After a few days desire for alcohol disappeared.

Cathartics and Cholagogues.

By A MEDICAL PRACTITIONER.

[This series of articles commenced in our Winter Number (January 26, 1907, p. 165). The author described generally the purposes of these medicines, and specifically referred to the actions of magnesium sulphate and carbonate, as well as other saline laxatives. The next article, in our issue of May 25, dealt with the vegetable cathartics. The following notes conclude the series.]

PODOPHYLLIN

has long enjoyed a reputation as a cholagogue as well as a purgative. Its purgative properties are due to the fact of its being a resin, all resins acting as irritants on the intestine. Its action commences in the duodenum, and while there it stimulates the secretion of the intestinal glands and also acts as an excretory cholagogue. Some of it is absorbed into the blood, passes to the liver, and there acts also as a secretory cholagogue. In the small doses in which it is usually given ($\frac{1}{4}$ to 1 grain) its action is exhausted in the duodenum, and for this reason it is usually prescribed in pill-form with other purgatives, such as aloin, colocynth, or calomel. It is very slow in action, eight to ten hours elapsing before an evacuation takes place.

EUONYMIN (EXT. EUONYMI SICC.)

has some reputation as a secretory cholagogue, due to the glucoside, euonymite, which it contains. It also contains a resin which supplements the action of the euonymite, especially in the direction of purgation. If the cholagogue action only is required, doses of $\frac{1}{4}$ to 1 grain should be prescribed; for catharsis 1 to 4 grains may be given.

CASCARA SAGRADA.

The bark of *Rhamnus Purshiana* has now almost displaced the *Rhamnus Frangula* and *R. catharticus*, because of its containing less resin, and being therefore less irritating. It contains, in addition to resin, certain neutral principles which act definitely on muscular contraction; to these principles it owes its great value as an intestinal tonic. It is one of our most serviceable drugs for the treatment of chronic constipation, but should never be prescribed as a cathartic. The bowels should first be emptied by one of the previously mentioned cathartics, and the fluid extract of cascara should then be given in doses of 10 to 15 minims three times a day until a daily evacuation is produced; the dose should then be taken once or twice daily for a fortnight, and an attempt made to effect regular evacuations by the correction of diet and habits. The aromatic syrup is an agreeable form in which to prescribe (20 minims to 1 dr. thrice a day), or it may be given in capsule, pill, or compressed tablet, the above principles as to dosage being kept in mind.

SULPHUR

is a laxative which has enjoyed a great reputation with the laity both before and after the therapeutical studies of Mrs. Squeers, and the reputation is on the whole well deserved. Being insoluble, sulphur acts throughout the whole length of the intestinal canal; it stimulates the glands and muscular coat, and hence its action is very complete although mild. Some sulphides are formed as it passes along the intestine, and these, being absorbed into the blood, exert their stimulating action on the various organs—kidneys, heart, blood-vessels; they also have a diuretic and diaphoretic action, and in the course of their excretion by the skin act as parasitocides. It is one of the easiest laxatives to give to children, and one of the best in the treatment of hemorrhoids. It should not be given for long periods, as its irritant action on the skin may produce an acne-like eruption. An objection to its use is the disagreeable odour communicated to the excretions. The lozenges are the best form in which to give it to children, and most adults can take them quite readily. The confection is quite a palatable preparation, and the compound liquorice powder is a useful alternative.

MERCURIALS

are among the useful cathartics, pil. hydrargyri, hydrarg. c. cretâ, and calomel being the best of them. They are of especial value in conditions where there is putrefaction going on in the intestine, as in faecal accumulation, typhoid,

dysentery, and gastro-enteritis. Of the three, calomel is probably the best; it is non-irritating and tasteless, and is best prescribed in powders, either alone or with a little sugar. In the gastro-enteritis of children $\frac{1}{4}$ grain every three hours acts well as an intestinal disinfectant, while 1 or 2 grains, either alone or with jalap, is usually effective as a purgative in infants, besides exercising an antiseptic action. In the case of adults 4 or 5 grains is the usual dose as a purgative, when given alone, 1 or 2 grains if prescribed in pill-form with aloes, colocynth, or podophyllin. In dysentery doses of 20 or 30 grains are sometimes given.

Turpentine, although not usually classed among purgatives, is sometimes very useful in removing faecal masses. It should not be prescribed unless the kidneys are healthy, and then only with or followed immediately by castor oil, so as to prevent absorption into the blood: from 2 to 4 dr. may be given with an ounce of castor oil.

Nitric and nitro-hydrochloric acids are most effective as cholagogues (both secretory and excretory), and are largely used in tropical hepatic congestions and in some forms of jaundice.

Reynoldsiana.

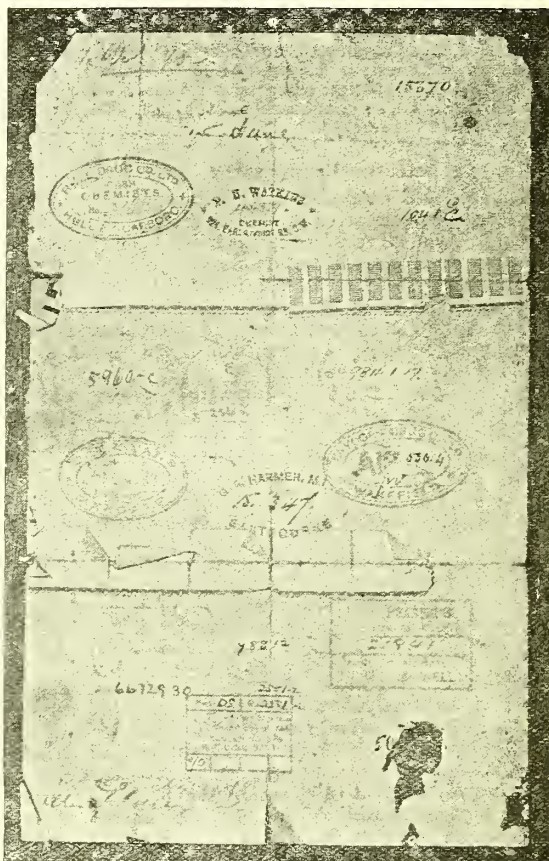
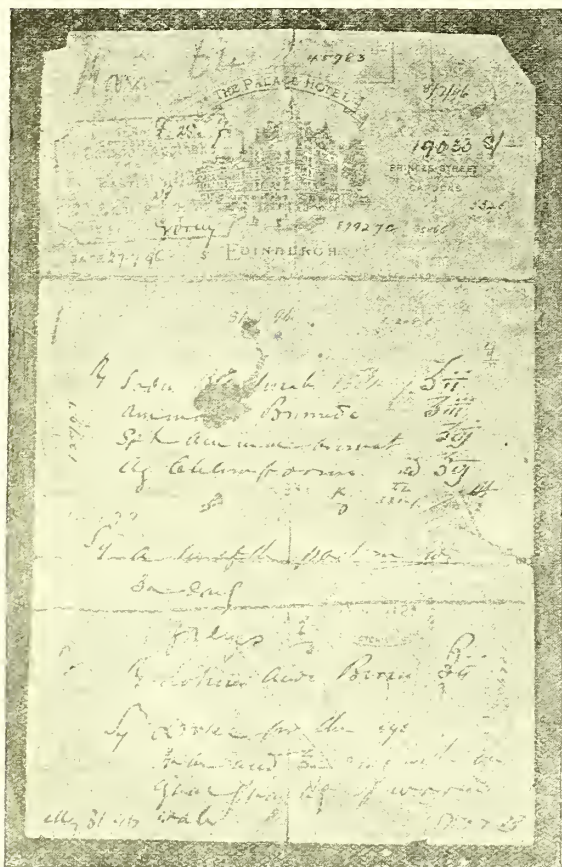


The Pharmacy Fire-brigade.

When the turpentine and resin overboils,
And the fittings and the counter are aflame,
And the smoke, in black and thick fantastic toils,
Curls around you, never stop to place the blame;
Just say "D—" (excuse the hyphen),
Seize a soda-water syphon,
Squirt the contents on the spot with deadly aim.
When the cotton-wool has kissed the flaming gas,
And a pyrotechnic pyramid ensues,
Never let a trace of consternation pass
O'er your features, nor the message-boy abuse;
Seize a soda-water syphon
And the neighbourhood enliven
With a fire-brigade display that will amuse.

QUININE TABLETS IN JAPAN.—The Bandong quinine factory, of Bandong, Java, now manufacture sugar-coated quinine tablets, samples of which are to be placed on exhibition in the Imperial Trade Museum at Tokio. The price of the tablets ranges from fl.5 per 1,000 for 3-grain tablets to fl.9.60 per 1,000 for 6-grain tablets, and includes the packing in bottles each holding 500 or 250 tablets. Messrs. Tiedeman & Van Kerchem, in Batavia, are agents for the sale of the production of the Bandong quinine factory.

A Much-Travelled Prescription.



A SUBSCRIBER sends us a photograph of a prescription he was recently asked to make up, which, from the number of the dispensing-stamps it bears, has evidently been some time in circulation. At this stage of the life of a prescription it is charitable for the pharmacist to offer to supply a

copy of the document, as sentimental attachment to an original can be carried too far and to the disadvantage of the customer who travels beyond the British Isles. The proprietor of the above script is proud of the marks it bears. We reproduce the front and back of the prescription.

Medicines for Manchuria.

A JAPANESE patent-medicine proprietor on a visit to Manchuria has written from Port Arthur an account of his experiences in which he says :

Our steamer, the *Rosetta Maru*, anchored at Ta-lien-Wan, the entrance to the land we have won by blood and iron, after an uneventful voyage, and we kissed the earth we have dreamt of for these ten years. One can imagine our feelings as we stood on that grand pier which ambitious and greedy Muscovites left for us to capture. The buildings in the town are large, and surrounded by green trees and shrubs. The streets of Ta-lien-Wan are spacious and pleasant. On the evening on which I arrived the chemists and druggists of the town held a social gathering at the Sen-Sho-Kwan Hotel. Besides Ta-lien-Wan, I have visited Inkao, Coyang, Mukden, Kinchu, and Port Arthur. Inkao reminds me of Osaka; it is a busy and prosperous port on the River Lao-hoas. Mukden, the capital of Old China, has many trading houses, and crowds of people are to be seen in the markets. The streets and roads are very bad, however, and my hired carriage has been upset on more than one occasion. The Corcans are dull and idle, but the Manchurians are active and industrious. The Corcans like our [Japanese] medicines, but it would be a mistake to send articles there of the same type as those supplied to China. The Manchurians do not altogether trust the medicines hitherto imported and bearing Korean characters on the packages. There are no advertisement-

boards or sign-boards to be seen along the route of the South Manchurian Railway, and there is an opening for an enterprising advertiser. Medicines for syphilis, fever, dyspepsia, brain-fag, and diarrhoea are much in demand, while eye-lotions and aerated waters will find a ready sale. The future for Japanese medicines is great; but I am sorry to discover that unscrupulous medicine-vendors have occasionally sold to the Chinese tooth-powder for stomach-ache and "Hotan" (an internal medicine) for eye-trouble. Such tricks are to our shame, and we should be careful to send out only genuine remedies.

The Japanese Consul-General at Mukden (Mr. Hagihara), reporting to the Foreign Office at Tokio with regard to Japanese patent medicines in Southern Manchuria, says that the future is full of possibilities. Before the war the Manchurians had no "civilised remedies," their medicines consisting of decoctions of "roots of grass" and "barks of trees." There is a big field for profitable enterprise in Manchuria; but the Consul warns his countrymen that "vagabonds, who deserted their friends and made themselves penniless by gambling, have come to Manchuria with imitation remedies, and have set themselves up as physicians, prescribing and dispensing." These persons have neither pharmaceutical nor medical experience, and their number increases daily. There ought to be some regulations to restrict such practices and to give honest traders a chance.

Observations and Reflections.

By XRAYSER.

Mr. Jonathan Hutchinson's Comments

on examinations, as set forth in the lecture mentioned last week, are directed particularly to those of the medical profession, but his criticisms are applicable to some of our frequent controversies in pharmaceutical politics. He is not opposed to examinations as qualifying tests; quite the contrary. But he wants to make them pleasant; or at least "as little distasteful as possible"; and at the same time he would have them more thorough than they are. To accomplish these ends he would eliminate the element of uncertainty as far as possible. The candidate ought to face his examination with the same confidence as he would place himself in a weighing-machine; confident, that is, that the verdict would be in exact relation to his deserts, and not dependent on the chances of questions or the moods of examiners. This is no doubt a counsel of perfection, but perhaps it may be approached. Mr. Hutchinson would abandon *viva-voce* examinations "as far as practicable"; he would retain objective examinations, meaning by these the inspection, identification, and description of things; but letting the student know in advance what kind of things he would have to inspect. The written questions should be devised at leisure by competent authorities, and published in the form of a catechism, to be revised every five years, and to these the examiners would be restricted.

It will be Said,

Mr. Hutchinson remarks, "that this method would lead to cramming up precise answers and would put more power into the hands of the grinder. My answer is that the student who had learned the answers to all the questions would simply have learnt his subjects." He would divide examinations down to one for each subject, and, dealing with the usual objections to this course, he contends that each subject would be better acquired. If, for instance, a candidate were allowed to present himself whenever he liked for examination in ophthalmics, and to take that subject by itself, he would get it up in a very different fashion than if he only expected to encounter a stray question or two in the general surgery examination. If examinations were thus developed Mr. Hutchinson considers specified curricula might be almost dispensed with. This opinion at least will not be readily assented to by our experts, but let it be remembered that in this paragraph the scheme is only indicated. Before it is condemned the author's arguments ought to be studied, and I believe anyone interested can obtain a copy of the lecture by writing for it to Jonathan Hutchinson, Esq., F.R.C.S., 15 Cavendish Square, W.

The Action against Messrs. Boots

for selling strychnine in tabloids without the observance of the statutory precautions was justified on their own showing. Their allegation that they followed the usual custom of chemists may be true to an extent; but that defence could be of no legal value, for custom cannot override statute; and so far as it is true, it only goes to show the necessity of the prosecution. That one offender should pay for the lesson from which a thousand others benefit is not perfect justice; but it is the necessary and useful consequence of all penal law. The defendants' counsel, however, went further, and contended that the fatal accident would have been just as likely to have occurred if all the prescribed formalities had been observed: in other words, that the provisions of the Act are of no real value. Possibly the defendants themselves would not so depreciate

the Act which they are required to obey. If I were a director of the company, I would repudiate the argument put forward on my behalf by counsel. The Magistrate, who represented the public, showed that he was not disposed to regard those precautions so lightly, and his view is shared by those pharmacists who most seriously realise the responsibilities of their business.

The Inland Revenue Report

throws many beams of light on our social and business conditions. It is only right that we should get something for the ninety millions and more that we pay to Somerset House, and though it does not go far, it may be acknowledged that the annual report is a trifling return for our money, well done. Sometimes, indeed, it almost seems as if it were compiled by human beings, and not by Government machines—as, for example, in the careful way in which the various divisions of the income-tax are explained. Generally the yield of each tax during the past ten years is tabulated, so that a perception of tendencies is possible. Thus it is shown that the gross income from all classes of profit has been steadily augmenting these past ten years by an average increment of about twenty-two millions a year. It may be said, therefore, that every one of us gets a rise of ten shillings per annum; but it must be remembered that this is an average, and that the great man in Park Lane scoops up the half-sovereigns of a good many of us. Profits from the ownership and occupation of land have fallen in those ten years by 4.8 and 5.6 per cent. respectively; but in the same period profits from the ownership of houses have increased by 29.4 per cent., from investments in Government securities (home, colonial, and foreign) by 21.9 per cent., from businesses by 34.8 per cent., from salaries in Government, corporation, and public company offices by 65 per cent. The last-named increase is largely due to the continued conversion of private businesses into joint-stock concerns. How far this tendency has developed is shown by another table, from which it appears that in the last year for which figures are available (1905-6) income-tax under Schedule D was paid by 480,030 "persons" on 130½ millions, by 59,164 "firms" on 83½ millions, and by 32,422 "companies" on 217½ millions. The companies, therefore, are now doing a little more than half the business of the nation.

The Taxed Businesses

which Somerset House interferes with yield some interesting records. One table indicates how motors are supplanting horse carriages. The carriage tax does not extend to Ireland, and two-wheeled carriages and motor-cycles are not distinguished. But it appears from the other figures that in the last four years larger horse vehicles have numerically declined from 120,000 to 108,000, while the number of motor vehicles has increased during those years from 8,000 to 32,000. Licensed vendors of intoxicating liquors of all classes numbered 233,000 ten years ago; last year this figure was reduced to 222,000. Also we drink less in similar proportion. Comparing the quantity of beer and spirits (home-made and foreign) retained for consumption in the United Kingdom with the population for each year, it is found that ten years ago we absorbed 30½ gallons of beer and 1.01 gallon of spirits per head, and that last year we contented ourselves with 27½ gallons of beer and with 0.91 gallon of spirits per head. Bridge has only influenced the duty on playing cards by raising the revenue from this source from 22,204*l.* to 24,167*l.* in the ten years. Armorial bearings, which yielded over 56,000*l.* in each of the nine preceding years, dropped last year to 55,433*l.*, and though gun licences advanced from 201,000 to 240,000, licences to kill game were actually rather fewer. What do sportsmen go out to shoot now? There were almost half a million more inhabited houses in Great Britain during the ten years, but the stamp-duty from leases is steadily declining. Licensed dogs numbered 1,379,482 in 1896, and 1,727,864 in 1906. Tobacco dealers, plate dealers, solicitors, auctioneers, and pawnbrokers have kept step with the growing population; but vendors of patent medicines increase faster in proportion than customers. The licences sold in 1896 were 32,473, and in 1907, 41,353. If, however, this increase and that of the duty on stamped medicines (254,726*l.* in 1896-7 and 327,106*l.* in 1906-7) be compared, it will appear that sales were 28 per cent. more, and vendors only 27 per cent. more numerous.

"Sanitas Disinfecting Fluid,"
 "Sanitas Crude Disinfecting Fluid,"
 "Sanitas Special Fluid,"
 "Sanitas Disinfecting Oil,"
 "Sanitas Okol Fluid,"
 "Sanitas Bactox Fluid,"
 "Sanitas Creocide Fluid,"
 "Sanitas Soldis Fluid,"
 "Sanitas Pinos Fluid,"

"Sanitas Sulphur Fumigating Candles,"
 "Sanitas Sulphugators,"
 "Sanitas Formic Sulphugators,"
 "Sanitas Formic Lamps,"
 "Sanitas Formic Fumigators,"
 "Sanitas Drain Testers,"
 "Sanitas Floor Polish,"
 Sheep Dips, Weed Killer,
 "Sulphume," and "Burnet's Smoke Tests,"
 Patent Preserved Peroxide of Hydrogen,
 Carbolic Fluids, Powders, and Soaps,

"Sanitas" Pamphlet and "How to Disinfect" Book sent free.

THE "SANITAS" CO., LTD., LONDON, E.

G. S. MUMFORD, FARRINGTON ROAD,
LONDON, E.C.

FULLER'S EARTH
IN
DREDGERS.

1d. 2d. 4d.
6/- gross 12/- gross 22/- gross

2½ per cent. Discount if Cash with Order.

CARRIAGE PAID to Railway Stations within 200 miles of London (or allowance made for distances beyond).

PUREST IN ENGLAND.

BOURNE SODA, SELTZER,
LITHIA, POTASH, LEMONADE,
GINGER ALE, &c.

Supplied in Six Dozen Cases, Carriage Paid, by Analysis, &c., on Application.

R. M. MILLS & CO.
BOURNE,
LINCOLNSHIRE. TABLE WATERS

West End Agents, WHEATLEY & SONS, 24 South Audley Street, W.
And of all Chemists, Wine Merchants, Hotels, &c

RANKIN'S OINTMENT.

P.A.T.A., 3d., 6d., and 1s.

The Chemists' Ointment.

The only Effective Ointment.

The Ointment with 30 years' reputation.

IS A PART 2 POISON,

And may NOT be sold by unqualified dealers.

Liberal supply of advertising matter on request from

RANKIN & CO., PHARMACEUTICAL CHEMISTS,
KILMARNOCK, N.B.

FLETCHERS' HYDROBROMATES.

The titles "Syr. Hydrobrom." and "Syr. Hydrobrom. c Strychnia" were originated by us in the year 1879 and can only be legitimately applied to FLETCHERS' HYDROBROMATES. Legal proceedings will be instituted against any firm or person dispensing or offering for sale fraudulent imitations of FLETCHERS' SYRUPS.

SOLE PROPRIETORS:

FLETCHER, FLETCHER & CO., LD., LONDON, N.

Editorial Comments.

Cresol as a Germicide.

In the new United States Pharmacopœia a clear mixing disinfecting-solution was introduced under the name of "liquor cresolis compositus," of somewhat similar composition to the liquor cresoli saponatus of the German Pharmacopœia. The recipe for the former liquor is as follows:

Cresol	...	...	...	500 grams
Linseed oil	...	...	...	350 grams
Potassium hydroxide	...	...	...	80 grams
Water to make	...	...	...	1,000 grams

Dissolve the potassium hydroxide in 50 grams of water in a tared dish, add the linseed oil, and mix thoroughly. Then add the cresol, and stir until a clear solution is produced, finally adding sufficient water to make the finished product weigh 1,000 grams.

The cresol official in the U.S.P. is defined as a mixture of the three isomeric cresols boiling at from 195° to 205° C., and free from phenol, hydrocarbons, and water. The product obtained from the above formula is a thick, dark-brown oily-looking liquid. Objection has been taken to introducing such a liquor in an official book from the view that no previous tests had been made public which enabled the medical man to compare the germicidal value with that of carbolic acid. The advantages of the liquor are many, and an investigation made by Dr. C. N. McBride for the United States Department of Agriculture has been the means of proving that liquor cresolis compositus possesses a germicidal value which exceeds that of carbolic acid for the bacteria upon which it has been tested. These were *Bacillus pyocyaneus*, *B. cholerae suis*, *B. coli communis*, *B. typhosus*, *B. tuberculosis*, and *Staphylococcus pyogenes aureus*. The research was undertaken in connection with the question of disinfecting cattle cars, as it was desired to find a cheaper and more efficient disinfectant than the carbolic lime-wash at present employed. We may note here that in the course of the work the fact was well brought out that the efficacy of the carbolic lime-wash is much less than when the same proportion of carbolic acid is used without lime. Carbolate of calcium is a weaker disinfectant than carbolic acid, a point which needs to be remembered by the pharmacist when devising carbolic tooth-powders, or carbolic disinfecting powder—the base should be a neutral one.

In regard to the tests employed, Dr. McBride has followed the "drop" method devised by Rideal and Walker, and modified by Firth and Macfadyen in their work on the Standardisation Committee of the Royal Sanitary Institute. The procedure is to add five drops of a twenty-four-hour culture of the organisms upon which the disinfectant is to be tested, grown in beef broth, to 5 c.c. of the disinfectant. The mixture is then well shaken and sub-cultures are made from it at intervals of two and a half minutes, up to fifteen minutes. These sub-cultures are then incubated at 38° C. for at least two days. The rod method, which may be regarded as a modification of the "thread" method, was also employed. In this glass rods $\frac{3}{8}$ in. in diameter and 8 in. long are etched at one end. Cotton-wool is then wrapped

about the rods near one end, and the rods are thrust into test-tubes so as to engage the cotton in the mouth of the tube. The tubes containing the rods are then sterilised by dry heat. In making the tests the rods are removed from the test-tubes, and the enclosed or etched portion dipped in a suspension of the organisms and then held in the air for a few moments until dry. The rods are then transferred to test-tubes containing 5 c.c. each of the disinfectant for varying lengths of time. After exposure to the disinfectant the rods are dipped in sterile water in order to remove all traces of the disinfectant, and are transferred to tubes of sterile beef broth which are incubated for at least two days at 38° C. The suspension of the organism into which the rods are dipped is made from a twenty-four-hour culture grown on ordinary neutral agar by rubbing up in several c.c. of sterile water enough of the surface growth to give a suspension of approximately the same density as a twenty-four hour typhoid culture. In the original paper the author particularises the precautions taken to ensure uniformity in the results. The conclusion arrived at is as stated above. Cresol is a mixture of orthocresol (boiling-point 187°-189° C.), paracresol (b.p. 195°-199° C.), and metacresol (b.p. 200°-203° C.), and one part of the research was devoted to proving the superior value as disinfectants of the higher boiling cresols. In tests that have been made with cresol soaps this superiority has been hinted at, but Dr. McBride has established that the higher cresols are better germicides. This point would arise in fixing the boiling-point of an official cresol, but as a liquor cresolis compositus made with orthocresol was found to be nearly one and a half times as active as carbolic acid, the importance may be overrated.

"Le Roy le veut."

THE Parliamentary Session of 1907 came to an end on August 28. It has been exceptionally prolific in the legislation that has been carried through, but the Bills to which the Royal assent was given in the historic words at the head of this note do not include one dealing with poisons or pharmacy. The Government Bill, which persisted till a few weeks ago, was eventually sacrificed, and the prospect of the appointment of a Select Committee to inquire, among other things, into the question of company pharmacy vanished. The Pharmaceutical Society's Bill was also withdrawn. It must be confessed that it was with a languid feeling of relief that the two pharmacy Bills were dropped, as the long waiting had quite cooled the enthusiasm of chemists. Bloomsbury Square can now resume its long sleep until goaded temporarily into action by some of its more energetic constituents in the country. Most of the Acts that have become law affect chemists as citizens of the Empire, but none are of immediate concern to the drug-trade. The reduction in the income-tax will affect a proportion of the trade, and will be accordingly welcomed. The Patents and Designs Act effects some much-needed reforms in our patent laws. Its objects are thus referred to in the King's Speech :

I have also given my assent to a measure for the amendment of the existing Law relating to Patents and Designs, with a view especially to restraining the abuse of monopolies and to strengthening the provisions in regard to the revocation of British patents which are worked abroad, but which are not adequately worked in this country.

Some amendments have been made in the Companies Acts in the direction of affording a greater degree of protection to creditors and shareholders ; but none of the sections secure the much-needed protection to the public required through the abuse of the Pharmacy Act by limited companies.

A Code of Pharmaceutical Etiquette.

THE pharmaceutical profession in Germany is in the happy position of having representative bodies which, with the sanction of the Government, have the power of regulating the profession. Pharmacists further possess (so it is alleged, but the proofs are few) the privilege of being consulted by the Government before the latter bestows upon the apotheker a new decree. Doctors and lawyers have, in addition, a court of honour similar to that existent in the army, before which all cases affecting professional etiquette, or quarrels between members, are decided, and this court has been endowed with far-reaching powers so that its decisions can be enforced. The apothekers, as members of an "academical" profession, have long hankered after a similar institution to uphold the honour of pharmacy. A step in this direction has been undertaken by the Chamber of Doctors and Apothekers of the Duchy of Brunswick, and a code of "professional procedure for apothekers" has been instituted, by which it is enjoined that every apotheker, by his behaviour and conduct, in and out of business, must uphold the honour and prestige of the profession. He is to exercise discretion with regard to the business conduct of his colleagues when talking to other people, and refrain from any disparaging remark. In dealing with the public the apotheker is to refrain from criticising a doctor or his method of prescribing. He must not offer to supply medicines to doctors, dentists, veterinary surgeons, sick clubs, or similar institutions, outside the district usually covered by his business. In the case of personal discoveries a notification is permissible, but only with the remark that the article can be had in any pharmacy. In the event of disputes arising as to the extent of the business district covered by a pharmacy, the committee of the Brunswick section of the Apotheker Verein is to decide. It is forbidden to arrange with doctors, or other persons treating illnesses, that certain medicines shall be prescribed under fancy names, or in such a way as to prevent the prescription from being made up in any pharmacy. Should a doctor demand that the formula of ointments or of tablets be kept secret, the apotheker who undertakes their preparation must in each case inform all the pharmacies of the country of this fact, and also that he will supply the remedy at cost price. The following actions are to be considered beneath professional dignity :

- (a) Exploiting mistakes made by others, especially in cases of mistakes in the calculation of prescription charges.
- (b) Influencing for selfish purposes doctors, dentists, veterinary surgeons, quacks, managers of sick clubs, or any persons able to influence the securing of contracts for medicines, by persuasion, presents, or offers of profits, etc.
- (c) Granting such persons a share in the profits derived from the sale of certain remedies.
- (d) Placing boxes for collecting prescriptions or other arrangements designed to benefit any one pharmacy.

Exceptions may be sanctioned. The apotheker is permitted to allow persons without means a rebate, but the amount actually paid must be stated on the prescription. This is forbidden in the case of private persons able to pay. Local pharmaceutical associations will decide the highest rebate to be granted to sick clubs, charitable institutions, or doctors. All contracts with sick clubs must be sanctioned by the board of the local association. No apotheker may (alone or in conjunction with others) make an agreement with sick clubs or similar bodies for medicines in such a manner as to ensure the sole monopoly to the exclusion of other pharmacies. On taking over or opening a pharmacy a simple advertisement of this fact may be published in the papers not more than three times. This also applies to

intimations by letter. Newspaper advertisements mentioning certain pharmacies as depots for the preparations advertised are not allowed. The proprietor is responsible for acquainting his employes with these regulations and seeing that business is carried on in accordance with the code. Resolutions passed by a district association are binding on all the members, if in accordance with these rules; this applies especially to agreements regarding counter sale prices. These regulations have been issued in accordance with a law passed in 1903, whereby a chamber of doctors and apothekers for the Duchy of Brunswick was created and entrusted "with the duty of developing and maintaining a worthy professional spirit by the publication of a professional regulation in which those duties should be enumerated which doctors and apothekers should adhere to in the exercise of their professional duties and in daily life in order to uphold the honour and prestige of their profession." This chamber has been granted judicial powers, and can inflict fines up to 100%. Brunswick and Baden are the two States in Germany that have opened this institution to apothekers, and it remains to be seen how the commercial interests, which necessarily occur to a far greater measure in pharmacy than in the medical and judicial professions, will harmonise with the precepts of the new etiquette rules. Unfortunately, there is no mention of the penalties awaiting the transgressors of this code of honour, and we fancy the transgressors will be not a few. Is this the kind of thing the "ethical" members of the "profession" in this country are itching to introduce into Great Britain?

Preservatives and Dyes in Foods.

THE last of the bulletins (No. 76) issued by the Food and Drug Inspection Section of the United States Department of Agriculture refers to the above subject. It has been determined that no drug, chemical, or harmful or deleterious dye or preservative may be added to foods, or used in preparing them for the market, except common salt, sugar, wood-smoke, potable distilled liquors, vinegar, condiments, and, until further investigation, saltpetre. Sulphur dioxide is also permitted within limits for wines and food-products provided the amount does not exceed 350 mgrm. per litre in wines, or per kilogram of food-products, but not more than 70 mgrm. should be in the free state. Sodium benzoate not exceeding 1 per mille or an equivalent amount of benzoic acid may be used as a food preservative, and in this case, as well as sulphur dioxide, the fact must be stated on the labels. The effects of coal-tar dyes in foodstuffs are being investigated, and until the investigation is complete they propose to permit the use of the following as noted in Professor A. G. Green's edition of the Schultz-Julius Systematic Survey of the Organic Colouring-matters published in 1904:

Red Shades: 107. *Amaranth.* 56. *Ponceau* 3 R. 517. *Erythrosin.*
Orange Shade: 85. *Orange I.*
Yellow Shade: 4. *Naphthol yellow S.*
Green Shade: 435. *Light Green S. F. yellowish.*
Blue Shade: 692. *Indigo disulfoacid.*

Each of these colours shall be free from any colouring-matter other than the one specified, and shall not contain any contamination due to imperfect or incomplete manufacture.

A memorandum accompanies the decision and contains the data collected by the Department on which the foregoing recommendations are made. We publish these facts as being of interest to chemical manufacturers dealing in the products or exporting to the United States.

Ethical or Otherwise.

The question of ethics occupies much of the waking hours of a section of the members of the medical profession. The "British Medical Journal" was recently asked the following question:

Whether there is any objection, ethical or otherwise, to a general medical practitioner holding shares in a wholesale drug company from which he purchases drugs, etc.

An unthinking layman would probably answer straight off, "Certainly not"; but that would only be because the possibilities of the "etc." had escaped his notice. This is how our contemporary tackles the inquiry:

There is an obvious ethical objection to any member of the medical profession being interested in the sale of anything which it may be his professional duty to recommend to his patients. If the company in question sells only such goods and in such a way that he and not the patient will be the direct purchaser, this objection would not apply, but certain companies interested in the sale of particular proprietary articles have offered shares to the medical profession in the hope that those taking them will do their best to promote by their recommendations the sale of these articles; the position of these medical shareholders is obviously not in accordance with sound ethical principles.

The New Zealand Tariff.

In further reference to the alterations in the New Zealand tariff, particulars of which were given in our last issue (p. 340), we learn, on inquiry at the New Zealand Government Offices in London, that an official copy of the tariff has not yet been received, and it is difficult to say when such will be available. The only official information is in the form of a cable giving an extract from the speech of the Colonial Treasurer, delivered July 16, which is as follows:

He proposed at once to remit 375,000*l.* of Customs duties. On the other hand, other duties would be increased to the extent of 121,000*l.* Of this 61,000*l.* would represent taxation of additional items levied so as to favour British goods against foreign. He would place on the free list sugar, currants, raisins, figs, dates, unground spices, all articles of infants' food, cotton piece-goods, dress-prints, cotton tapestry, linseed and olive oils.

Our information last week did not include "all articles of infants' food." This evidently refers to proprietary brands, which were formerly dutiable at 15 per cent. *ad valorem*.

Cattle-spraying.

In several parts of the world where THE CHEMIST AND DRUGGIST circulates tick fever or Texas fever, red water, and distemper play havoc with the cattle. These diseases are spread by means of ticks, and the best means of combating the evil is by destroying the ticks. This is not always easy, as cattle are more unwieldy than sheep, and, moreover, the ticks infest the pasture and so reinfect an animal that has been cleared of the pests. Oiling the cattle is the method usually recommended, crude petroleum or seed oil and sulphur being employed. It takes about $\frac{3}{4}$ gal. of oil for each animal, the oil being applied with a paint-brush. Arsenical dips are efficacious, but the size of the dipper makes this method wasteful. A simpler way is to apply the liquid by means of a spray, this being, according to Mr. J. W. Parker, of Texas, an efficient method. The following, known as Mayo's formula, can be made with or without soap, the soap being sometimes omitted to enable the liquid to be more readily sprayed:

Arsenic trioxide, commercial ...	8 lb.
Sodium carbonate, crystallised ...	24 lb.
Yellow soap	24 lb.
Pine-tar	1 gal.
Water sufficient to make ...	500 gals.

Dissolve the arsenic in 20 to 30 gals. of water by boiling for from thirty to forty minutes, and add water to make 100 gals. Dissolve the soda in about 25 gals. of water, and then the soap, shaved. Into the soap-and-soda solution pour the tar in a fine stream, with constant stirring. Then mix the two solutions and make up to 500 gals. with water.

We suggest that the dip be supplied concentrated so that

1 gal. has to be mixed with 9 gals. of water; but the package must be distinctly labelled, and the purchaser further cautioned that if by accident or design the strong liquid is used the skin of the animal will be seriously injured. The residual wash should be disposed of in a way that will not be dangerous. It is the fact that there is less waste if a spray is used than if the liquid is used as a dip that forms a recommendation of the spraying method.

A Relic of the Past.

The practice of former days in regard to infringements of the Medicine-stamp Act in 1829 is shown in the following extract from the "Lancet" of that date:

When an informer lays an information, the worthy clerks of the Stamp Office question him as to his name and address, but in a manner which, it is at once convincing enough to the hearer, there is little occasion for. When they make out a "good case," the plan pursued is to summon the offender to the Court of Exchequer, on such a day, where he is to attend with his solicitor to defend the action—viz., "the Attorney General *versus* Yourself, under a fine of 100l." This, Sir, is the puffing summons sent by the Solicitor of Stamps; puffing it may well be called, for it is never put into effect; it acts merely as an organ of terror to the affrighted defendant. Thus do these precious worthies bully and bluster. The defendant, thinking it would be madness to defend an action where the Attorney General is plaintiff, petitions the Commissioners of Stamps for a mitigation of the penalty (10l.), which he almost invariably obtains, to 4l.

The inclusion of soda-water in the schedule of liable medicines is further referred to, from which it appears that informers tried various means of trapping the apothecary, but whether informing was a profitable business is not stated, although it is inferred from the caution that is given to the apothecary to be "extremely watchful."

Economical Fertilisers.

Under the Canadian Fertilisers Act, 1890, the chemists of the Laboratory of the Inland Revenue Department at Ottawa annually examine a large number of samples of fertilisers with a view to checking the "guaranteed contents" as regards fertilising constituents. One of the last bulletins issued by the Minister of Inland Revenue deals with this subject, and is interesting on account of a note appended to the report by the late Mr. Thomas Macfarlane, in which reasons are advanced as to why higher-grade fertilisers should be preferred. It is pointed out that

the expense of mixing a ton of fertiliser containing, say, 300 lb. of plant-food is as great as in the case of one twice as rich in fertilising constituents. The cost of package, carting, and freight is the same per ton. It is evident, therefore, that the manufacturer is in a position to sell the plant-food of high-grade fertilisers at cheaper rates per lb. than in brands of low grade. In other words, the higher the grade the cheaper can the fertilising constituents be bought. Farmers should therefore consider the advantage of purchasing only high-grade fertilisers. They should also be advised to avoid those brands which have less than 2 per cent. of ammonia or potash. These percentages are too low in cases where such ingredients are required, and where they are not needed it is useless to apply them. It is a waste of money to buy nitrogen or potash in fertilisers containing less than 1 per cent. of these constituents.

Liquid Predigested Foods.

The Council on Pharmacy and Chemistry of the American Medical Association have published a report on the examination of various "liquid foods," or "predigested foods," which are on the market. The amounts of protein and carbohydrates were determined with a view to showing the value of the foods to maintain normal nutrition. Some contained alcohol and glycerin, while the protein content varied from 0.5 to more than 6 per cent., and the carbohydrates varied from 0.55 to more than 15 per cent., this including sucrose, maltose, glucose, invert sugar, and dextrin. Based on a consideration of the calories needed

to supply energy in a sick person (1,500 calories) as compared with two litres of milk (equal to 1,430 calories) needed to sustain the vitality of a patient during a serious illness, the committee report that the amount of the "medicinal food" would need to be from 700 to 1,500 c.c. The standard recommended for "liquid foods" is that they should yield at least 8.8 per cent. of solids on evaporation, and possess at least as much nutritive value as milk. One fourth of the nutritive value, exclusive of alcohol and glycerin, should be in the nitrogenous matter, and the protein matter should have been converted by enzymes, not by acids or heat, as some observers hold that the results in the last-named cases are not so desirable as the enzyme products.

Mistletoe as a Medicine.

Mistletoe (*Viscum album*) formerly had a reputation in the treatment of post-partum hæmorrhage, while the berries have purgative and emetic properties attributed to them. The powdered leaves are said to be an ingredient in a proprietary remedy for chorea. The mistletoe is being re-investigated in France, that growing on the poplar and plum having been utilised to make the following pharmacological preparations: Powder, aqueous extract, alcoholic extract, tincture, and ethereal extract. The powder from the dry leaves and young shoots, representing 40 to 42 per cent. of the fresh plant, was given in doses of 1.5 gram during twenty-four hours, in cachets or pills. The aqueous extract—the plant yields 23 per cent.—was employed in doses of 0.1 to 0.15, in pills, sometimes with tannin, or in the form of a syrup. A physiological solution of the extract is another method of administering the drug hypodermically or into the veins. It remains to test the mistletoe in practice—it has already been shown to diminish the arterial pressure—and that is to be undertaken by M. Gaultier, who introduced the subject to the notice of the French Society of Therapeutics.

Sulphuric Acid from Coal-gas.

By D. B. DORT, F.I.C.

I HAVE on several occasions tested the corroded coating on a copper water-bath and found a fair amount of sulphate. An opal-glass shade over a burner was washed and the washings mixed with chloride of barium, the result being a considerable precipitate. I then placed a large bell-glass over a Bunsen flame, turned low, and after twenty-four hours washed out the bell-glass, heated the washings to boiling, added hydrochloric acid and barium chloride. The precipitate was collected in the usual way. On ignition it gave 0.316 gram barium sulphate=0.1328 gram sulphuric acid. The gas was passed through water containing subacetate of lead, but gave not the slightest colour. It was then passed through water containing a little soda, and coloured with phenolphthalein. After a short time the colour disappeared. The gas was next bubbled through water containing iodine. This was quickly decolorised. These latter reactions indicate the probable presence of sulphurous acid. But whatever may be the sulphur compound or compounds present, the serious fact to consider is that oil of vitriol should be formed in considerable amount by the burning of illuminating-gas. A decorator whom I consulted says that they do find extensive damage resulting apparently from burning gas. From the public health point of view the subject is worthy of serious investigation.

It would be interesting to know if the gas supplied in other places gives similar results.

A SUBSCRIBER (208/48) in New South Wales writes: "The C. & D. is very interesting and instructive, and I anxiously look out for the numbers when they are due."

Legal Reports.

Sale of Food and Drugs Acts.

BEESWAX.

At the Lambeth Police Court on August 28, Alfred Ness, chemist and druggist, 68 Brixton Road, S.W., was summoned by the Lambeth Borough Council for selling beeswax containing thirty parts of paraffin wax.

Mr. C. H. Kirby (for the Chemists' Defence Association) said the defendant had a warranty of which proper notice was given to the wholesale house who supplied the defendant, but of which notice was not given within the proper time to the prosecution. If he proved the warranty he ventured to suggest that the Court should not impose a penalty upon a man who had been in business for a number of years, and against whom there had never been a complaint before. Beeswax P.B. was ordered of the traveller, and the article supplied was so invoiced by the wholesale house. The inspector, in fact, was the first person to be served with the beeswax included in that particular invoice.

Mr. Ness, the defendant, was called and said he ordered the beeswax in question from a firm (whose name was not mentioned) on June 20 last. He ordered cera flav. P.B., giving the order verbally to a traveller. He received the goods on the following Monday. On July 25 (when the sample was taken) he had no other beeswax in the shop except that included in the invoice.

Mr. Kirby put in the invoice.

Mr. Hopkins (magistrate): Isn't it going a bit too far to say that this is a warranty for any purpose?

Mr. Kirby submitted that the order and the invoice constituted the whole contract, and quoted the case of *Hawkins v. Williams*, in which it was held that an invoice bearing the words "Guaranteed pure" was sufficient to constitute a warranty to satisfy the statute.

Mr. Hopkins: I think there was a case some time ago in which the question arose as to how far an invoice was a warranty.

Mr. Kirby: I agree. There have been a multitude of cases as to what constitutes a warranty, and it is impossible to reconcile them; but there is no later case than that as to an invoice constituting a warranty.

Mr. Hopkins: The case I am thinking of is where a counterman wrote the word "Flannelette."

Mr. Kirby: That was under the Merchandise Marks Act.

Mr. Hopkins: It may be.

Mr. Kirby said the wholesale house were prepared to take the responsibility because they had bought and sold the article, believing it to be pure.

Mr. Hopkins: What is my position? I am bound to convict, am I not?

Mr. Kirby: I venture to think not, sir. You have the power to dismiss the case if we pay the costs, which we are quite prepared to do.

Mr. Hopkins: It looks to me more of an accident than most of these cases. What do you say I am to do? Charge you only the costs?

Mr. Kirby: If you please.

The defendant was then ordered to pay the costs of the proceedings—12s. 6d.

County Court Cases.

BASIC-SLAG DISPUTE.

In the City of London Court on August 22, the Chemical Manure Co., Ltd., 34 Mark Lane, E.C., sued Mr. Burman, Earlswood, Hockley Heath, Birmingham, to recover the sum of 3*l.*, wrongfully deducted as discount. The dispute was about the price of 12 tons of basic slag, but after hearing evidence Judge Lumley Smith held that the plaintiffs could not enforce their claim, and gave judgment for the defendant, with costs.

BIRD-LIME.

At Berwick-upon-Tweed County Court on August 20, before Judge Greenwell, Messrs. Charles Glen & Co., manufacturing chemists, Glasgow, sued Messrs. Lyle & Co., manufacturing chemists, Berwick, for 3*l.* 5s. 8d. for goods supplied. The defendants entered a counterclaim for 10*l.* for

damages sustained by defective material supplied. The action had reference to 1 cwt. of bird-lime supplied by the plaintiffs in 1906. Mr. Glen said the defendants never said for what purpose the bird-lime was required, but they eventually wrote stating that it had been a complete failure. He declined to state what were the ingredients of bird-lime supplied. Plaintiff produced fly-papers he had had in his pocket for three months, and said that they would not dry for another twelve months. The bird-lime, he said, must have been spoiled by defendant in manipulation. Mr. Lyle stated that the bird-lime was quite dry, probably because it contained too much resin. He spoiled fifty gross of papers by using it. The Judge found for plaintiffs on the claim and non-suited defendant on the counterclaim.

Bankruptcy Report.

Re WILLIAM HENRY CALVERT, trading as a Chemist and Druggist at 94 Westgate, Rotherham.—A meeting of creditors was held at Sheffield on August 21. Particulars of the statement of affairs appeared in the *C. & D.*, August 17, p. 296. Debtor was subjected to a lengthy examination on behalf of the petitioning creditor, Mr. Billington. Debtor said that only 10*l.* worth of furniture was his own. He admitted that he had purchased 30*l.* worth of furniture on the hire system, but he explained that this had depreciated in value from 30*l.* to 10*l.*. He did not remember having told Mr. Billington that he had "something like 1,000*l.*" left him. When he took over the business the turnover was 280*l.* a year, while last year it was over 500*l.*, of which only 3*l.* was book-debts. Questioned as to how it was that having practically doubled the turnover he was still more in debt than ever, he could only explain that he had increased the stock. The matter was left in the hands of the Official Receiver.

Deed of Arrangement.

COUSENS, JOHN STATHER, 28 Devon Drive, Sherwood, Nottingham, Chemist and Druggist.—Trustee, John A. Palmer, Newhall Street, Birmingham, accountant. Dated, August 15; filed, August 22. Liabilities unsecured, 142*l.* 16s. 2d.; estimated net assets, 20*l.* Composition of 5s. in the pound. Debtor to pay trustee 2*l.* monthly, commencing September 12, 1907, to be rateably divided every three months, secured by an assignment upon trust, etc. The creditors include: Bourne, Johnson & Latimer, London (4*l.*); Southall Bros. & Barclay, Ltd., Birmingham (13*l.*); Evans Sons Lescher & Webb, Ltd., Liverpool (35*l.*); J. F. Wilkinson, Manchester (3*l.*); Armitage Bros., Nottingham (8*l.*); J. H. Heywood, Nottingham (5*l.*); Newball & Mason, Nottingham (25*l.*); Widdowson & Co., Nottingham (5*l.*); W. Tait, Nottingham (12*l.*).

Gazette.

Partnerships Dissolved.

BONNELL, B. J., and COOPER, A. J. B., under the style of the Peptenzyme Co., Lenthall Place, Gloucester Road, South Kensington, dealers in peptenzyme, etc.

HUNT, W., and LAMB, J., under the style of Hunt & Co., Hinkley, Leicestershire, mineral-water manufacturers.

The Bankruptcy Acts, 1883 and 1890.

RECEIVING ORDERS.

EDWARD, JOHN HUTCHINSON, Ardwick, Manchester, dental surgeon.

GOURLY, H. HARTE, Gosforth, Northumberland, doctor of medicine.

New Companies and Company News.

ENGLAND DIAMOND FIRE EXTINGUISHER CO., LTD.—Capital 3,500*l.*, in 1*l.* shares. Objects: To carry on the business of manufacturing, compounding, purchasing, and selling a fire-extinguishing powder, with suitable holder, now known as the "Diamond Fire Extinguisher," and to adopt an agreement with A. A. Cruickshank, Craighall Works, Masterton Street, Glasgow, on behalf of the Diamond Fire Extinguisher Appliances, Ltd., of Glasgow. No initial public issue. Table "A" mainly applies.

NEW BRUNSWICK CANADIAN SALT CO., LTD.—Capital 50,000*l.*, in 1*l.* shares. Objects: To carry on the business of salt and chemical manufacturers, miners, engineers, shippers, preparers for market of salt and all products made therefrom, etc. No initial public issue. The first directors are to be appointed by the subscribers. Qualification, 250*l.* Remuneration, 150*l.* each per annum, and 2½ per cent. of the profits available for distribution after paying 10 per cent. on the ordinary shares, divisible. Registered office, Dixon House, Lloyd's Avenue, E.C.

GLASGOW APOTHECARIES CO., LTD.—The first statutory meeting of this company has been held, when Dr. John Couper was appointed chairman, Mr. Robert McAdam managing director, and Mr. John Walker secretary of the company. The travellers and a number of other employes were allotted shares in the company.

LAWES' CHEMICAL MANURE CO., LTD.—The net profit for the year amounts, after payment of debenture interest, to 16,913*l.* Dividend of 7 per cent. on the preference shares, 5,372*l.*; dividend of 7*s.* 6*d.* per share on the ordinary shares, with interest at 5 per cent. per annum for prepayment on fully-paid-up shares, less income-tax, 9,468*l.*; to reserve account, 1,000*l.*; to reserve account for bad and doubtful debts, 500*l.*; leaving 845*l.* to be carried forward.

Birth.

LLOYD-JONES.—At 127 Commercial Street, Newport, Mon., on August 26, the wife of D. Lloyd-Jones, chemist and druggist, of a son.

Marriages.

CHAPMAN—ROSE.—At Glasgow, on August 26, by the Rev. John Steel, D.D., Alexander Beck Chapman, dentist, Exeter, to Annie Fraser, younger daughter of the late Mr. Alexander Rose, chemist, Glasgow.

ECROYD—REYNOLDS.—At Friends' Meeting House, Kendal, on August 21, Cuthbert Wigham Ecroyd, of Birmingham, youngest son of Mr. Alfred Russell Ecroyd, of Altana, Spain, to Emily Josephine, youngest daughter of Mr. Freshfield Reynolds, pharmaceutical chemist, of Gloucester.

FIRTH—FURNESS.—At Sheffield, on August 22, by the Rev. H. A. Goodwin, M.A., Ambrose Firth, of Bamford, to Martha, sister of Mr. J. M. Furness, J.P., chemist and druggist, of Sheffield and Hope.

PURSE—TURNBULL.—At Trinity Presbyterian Church, Sunderland, on August 21, by the Rev. J. M. Little, Alfred Henry M. Purse, chemist and druggist, to Rhoda Cecilia, youngest daughter of the late Captain Turnbull, Sunderland.

STORM—HEWISH.—At the Mint Wesleyan Church, Exeter, by the Rev. G. R. Holt Shafto, Herbert Ridley Storm, chemist and druggist (manager for Messrs. Holman, Ham & Co., at Heavitree), to Mabel, only daughter of Mr. and Mrs. R. T. Hewish, of Exeter.

Deaths.

ALTHORP.—At Tunbridge Wells on July 20, Mr. George Althorp, chemist and druggist, aged sixty-five.

BURN.—At Nottingham on August 16, Mr. James William Burn, chemist and druggist, aged forty-six.

HICKS.—At Banbury, on August 20, Mr. Joseph Hicks, father of Mr. Joseph Hicks, chemist and druggist, Weston-super-Mare.

HUGHES.—At Church Street, Flint, on August 26, Alderman Edward James Hughes, J.P. (for many years with the United Alkali Co., Ltd.), aged fifty-one. Alderman Hughes had been a member of the Flint Town Council since 1881, becoming an alderman last year. He was Mayor in 1900 and 1901, and in 1894 was appointed a Borough Magistrate.

RHODES.—At 171 Fawcett Road, Southsea, on August 19, Minnie Victoria, wife of Mr. J. W. Rhodes, chemist and druggist, aged thirty-one.

COTTON.—At 120 Prescott Road, St. Helens, on August 21, Mr. John Cotton, J.P., chemist and druggist, aged seventy-eight.

Mr. Cotton, who attended to business until two months ago, had been a prominent figure in Lancashire for more than half a century. He was a native of Congleton, of which town his father was Mayor. He served his apprenticeship with a medical man at Holmes Chapel, and commenced business at St. Helens some fifty-five years ago. Mr. Cotton was for upwards of forty years associated with the St. Helens Liberal Association, of which he was hon. secretary for over thirty years, and he was one of the most active workers on behalf of the late Mr. W. E. Gladstone when he contested South-West Lancs. Mr. Cotton was also a member of the old Town Commissioners. He had served on the Town Council, and was for fourteen years a Justice of the Peace for the borough. He leaves three daughters and three sons, the eldest son being a doctor. The funeral took place at St. Helens on August 24.



Spanish Turpentine.

ABOUT seven years ago the various works in Spain engaged in the manufacture of resin and oil of turpentine formed a trust, under the title of "L'Union Resinera Espanola," with headquarters at Bilbao. The undertaking, which has practically a monopoly in these products in Spain, has met with a great measure of success, judging from a report on its financial position which has recently been issued. The following figures illustrate the progress of the trust since its origin:

—	Turpentine	Resin	Profit
	kilos.	kilos.	p setas.
1898-1899	1,866,821	6,534,681	1,025,179.24
1899-1900	2,336,288	8,375,535	1,243,531.73
1900-1901	2,379,301	8,167,005	1,315,552.87
1901-1902	2,287,671	7,972,650	1,773,418.67
1902-1903	2,549,309	8,706,474	1,953,886.46
1903-1904	3,146,896	10,825,256	2,183,135.53
1904-1905	3,440,815	12,090,555	2,892,435.42
1905-1906	3,589,324	12,157,241	3,069,555.43

The trust now possesses twenty factories and thirteen saw-mills, and, as labour is cheap, the cost of production is kept as low as possible. Last year a new method of distillation (the patent of N. Calixte Rodriguez) was given a trial, and as it proved satisfactory, it was eventually adopted at all the factories. Of the total output last year, 76.79 per cent. of the turpentine was exported, the remaining 23.21 per cent. being consumed in Spain. The prices obtained were very satisfactory, considering the fact that American turpentine at the beginning of 1905 stood at about 38*s.* per cwt., advancing to 63*s.* odd in June, and receding to about 49*s.* by the end of the year. Good prices were also obtained for resin, it being remarkable that clear Spanish for the first time realised 6*d.* per cwt. more than similar French. Exportation of the products was facilitated by the establishment of a depot at Passages and by the use of tank-waggons. In 1905, 1,351,945 kilos. of turpentine oil was sent to Switzerland, Italy, and South Germany, whereas three years ago scarcely half a million kilos. was exported to those countries. It is only within the past two years that resin has been exported to England, the quantity shipped from Bilbao being 3,187,000 kilos. Belgium received 1,527,938 kilos., Holland 213,790 kilos., and France 22,768 kilos.

Coloured Bromides.

THE colours produced in bromide photographs by chemical means are various, the following processes being a useful supplement to the methods of toning bromides given in the *C. & D.*, July 23, 1906, and May 25, 1907. There are several formulæ for the production of

GREEN TONES,

the most favoured being perhaps that in which vanadium salts are used. A good recipe is the following :

A.
Vanadium chloride 20 grains
Dissolve in a sufficiency of—
Hydrochloric acid,
Water equal parts

B.
Oxalic acid, saturated solution ... 2½ oz.
Ferric oxalate 10 grains
Ferric chloride 10 grains

Mix and add—
Potassium ferrocyanide 20 grains
Water 5 oz.

Add solution A to B and make up to 20 oz.

The prints are immersed until the image turns blue, and they are then washed till the blue changes to green.

Another method with iron salts requires the following bath, the quantities of the three ingredients being of 10-per-cent. solutions :

Ferric ammonium citrate ... ½ oz.
Potassium ferricyanide ... ½ oz.
Glacial acetic acid 5 oz.

Mix.

The prints are immersed in this bath until they assume a greenish-blue colour, when they are washed until the yellow stain in the high lights is removed. A purer green is obtained by toning in this bath for a few seconds, and transferring the prints after a rinse in water to a solution of chromic acid (45 grains to the ounce). The yellow stain produced by the chromium is removed by immersing the prints in a solution of alum, a final washing completing the process. As this process intensifies the prints, the best results are obtained with weak prints. Another process involves the use of uranium nitrate, ferric ammonium citrate, and potassium ferricyanide in acid solution. The tones given with the baths vary according to the particular brand of paper in use.

BLUE TONES

are best produced by using the following bath :

Ferric ammonium citrate 12 grains
Potassium ferricyanide 12 grains
Nitric acid 24 minims
Water to 2 pints

Toning is rapid, the prints first assuming a blue-black colour, which changes in less than a minute to a deep Prussian blue. By immersing the prints in a very weak solution of potassium cyanide (1 in 5,000 is strong enough) the blue is rendered more brilliant. Finally, the prints are washed in water for about a quarter of an hour and dried.

VARIOUS COLOURS

are produced by first feebly developing a print with eikonogen, and, after fixing and washing in the usual way, bleaching to a yellowish tint in

Potassium ferricyanide 260 grains
Lead nitrate 175 grains
Water to 1 pint

By immersing the print in one of the following solutions the colour indicated is obtained, and although the results are probably not permanent, the colours are very beautiful, and the formulæ will be found useful when a variety of tones is desired. For yellow immerse the bleached print in

Potassium chromate 1 oz.
Water 25 oz.

Brown is obtained by the use of

Schlippe's salt 290 grains
Ammonia (.880°) 145 minims
Water 10 oz.

Nickel green results from a bath of

Nickel chloride 1 oz.
Water 10 oz.

An orange colour is yielded by the following :

Mercury perchloride 130 grains
Potassium iodide 196 grains
Water 10 oz.

By treating the yellow-chromium toned print with a 10-per-cent. solution of copper chloride a red colour is obtained, while a green is produced by immersion in a solution of ferric chloride of the same strength. It should not be difficult for a chemist to think of some further colour-changes.

Photographic Notes.

A Warning.

Photographic dealers should note the warning we give on p. 361 in regard to a "colonel." This individual is apparently touring round the coast preying on dealers in photographs.

Opening a Tube of Gold.

THE usual way with the photographic chemist is, as far as my observation goes, to place the tube in a conical measure and strike it with a glass rod. A correspondent of "Photography" finds the best way is to wrap the bulb in paper and strike it with a hammer. This method should be borne in mind by the photographic chemist, who often assumes that what to him is a simple matter is as easy a problem to his customer.

Pyrocatechin Stand Developer.

A. Pyrocatechin 200 grains
Sodium sulphite 2 oz.
Distilled water to 20 oz.
B. Sodium carbonate 4 oz.
Distilled water to 20 oz.

One ounce of A and B will develop a normally exposed plate in about six minutes. The same, diluted with 3 oz. of water, will act in about fifteen minutes; diluted to 10 oz. half an hour is required; while one hour is needed for a developer diluted to a pint.—*Photogram*.

Hypo-alum Toning-bath.

A TONING-BATH of the hypo-alum type which is given in "Camera Craft" has some novel features about it. The formula is :

Sodium hyposulphite 10 oz.
Powdered alum 2 oz.
Sugar 2 oz.
Boiling water 70 oz.

The solution is not to be filtered. A method of ripening the bath is stated to be to heat it to about 130° F. for a few times, allowing it to cool between the heatings. The prints are first fixed and washed and then transferred to the cold bath, which is then gradually heated to between 130° and 140° F. The use of sugar in this type of toning-bath is new to me. I notice also that Mr. Baskett is advocating the addition of a small quantity of golden syrup to metol-quinol developer; he states that it gives the operator greater control in development of over-exposed plates.

Phonographic Advertising.

"PHOTOGRAPHY" had in a recent number a humorous article, in which it was suggested that the phonograph could be more employed as an advertising-medium. In a photographic dealer's, for instance, it might be set to repeat the following :

Nothing earthly could be neater than our new Exposure Meter.

Used by everyone from Pieter-

Maritzburg to Kew;

It's a perfect little treasure to the amateur of leisure,

Or the Pro. who wants to measure

What the light'll do;

Not a rival can outvie it: don't unwittingly decry it

By asserting you won't try it—

BUY it! This means YOU!

In the same issue of "Photography" a correspondent complains that the dark-rooms at chemists' are often far from light-tight. *Verbum sapienti satis.*

Reviews.

Traité Complet d'Analyse Chimique Appliquée aux Essais Industriels. Par J. POST et B. NEUMANN avec la collaboration de nombreux chimistes et spécialistes. (12th French edition translated from the third German edition, and enlarged by Dr. L. GAUTIER.) Vol. I., Part 1. 9½ in. × 6¼ in. Pp. 219. 6fr. 50. (Paris: A. Hermann, 6 Rue de la Sorbonne.)

THE whole work of which this is the first part is to consist of two volumes, each having four parts. Judging from the prospectus which is printed in the first part, the work will cover the whole field of industrial analytical analysis. The part which we have received covers the analyses of water (by Dr. Vogel), fuel (by Dr. Langbein), and gases (by Dr. Neumann). There are numerous illustrations in the text, and conciseness is a characteristic of the literary work. One of the best chapters is that on pyrometry, this difficult subject occupying over fifty pages. The gases referred to are lighting and heating gases and the air of mines. The methods of assaying these numerous gases are given; we know of no similar publication in which the modern processes are so conveniently brought together.

Celluloid: Its Raw Material, Manufacture, Properties, and Uses. By Dr. FR. BÖCKMANN. 7½ × 4½. Pp. 113. Illustrated. 5s. net. (London: Scott, Greenwood & Co, 8 Broadway, Ludgate Hill, E.C.)

THIS is a translation of the third edition of Böckmann's "Das Celluloid," which was first published in 1880 at Leipzig. The preface to the first edition is reproduced in this translation, but would better have been suppressed. In view of the well-authenticated cases of the dangerous inflammability of celluloid, we imagine that "accounts of ladies whose hair has been burnt off by the ignition of a celluloid comb" are no longer regarded by "experts" as "amusing." The book is further stated to have been written "to put an end to such nonsense," and we are told that "burning celluloid can be easily extinguished by a single strong puff of wind, unless the burning object has been on fire for some time." We are writing this within a few yards of a warehouse in which a few years ago several lives were lost through a celluloid fire. The fierceness with which celluloid burns is so well known that we hope the next edition of this book will be amended to bring its statements nearer to actuality. The paragraphs on celluloid as a material for artificial teeth would also better be left out; it is quite useless for the purpose. It is also quite unsuitable for making printing-blocks. The actual manufacture of celluloid is dealt with in about twelve pages.

Solubilities of Inorganic and Organic Substances: A Handbook of the most Reliable Quantitative Solubility Determinations. Recalculated and compiled by ATHERTON SEIDELL, Ph.D. 9 × 5½. Pp. 367. 12s. 6d. net. (London: Crosby Lockwood & Son, Stationers' Hall Court, Ludgate Hill, E.C.)

A book of this kind is a valuable reference volume for pharmaceutical workers. Previous books devoted to this subject are Storer's "First Outlines of a Dictionary of Solubilities of Chemical Substances," published in 1864, and Comey's "Dictionary of Chemical Solubilities," which was brought out in 1894—it dealt with inorganic substances only. Dr. Seidell, a chemist in the pharmacological division of the Public Health Laboratory of the United States, realised some time ago that the literature upon solubilities has grown to such an extent that the chief facts should be collected and published together. The material has been collected from the original sources, files of twenty-five chemical journals issued since 1875 having been gone through in the course of the work. A selection has been made in cases where various determinations exist by calculating them to a common basis and drawing curves through the points plotted on cross-section paper. In this way evidence was obtained as to which determinations were the most trustworthy. The uniformity of results thus introduced is not the least valuable consequence of this method of working. As is indicated in the title, the solubilities of both inorganic and organic substances are given. The

chemicals dealt with are very numerous, but there are some omissions which will be noticeable to a pharmacist. Acetanilide solubilities are given in a number of solvents, but we do not find any mention of phenazone or salicin. We mention these with the saving clause that there are hundreds of substances dealt with which we had not expected to find.

The Distillation of Resins, Resinate Lakes and Pigments, Carbon Pigments, and Pigments for Typewriting Machines, Manifolders, etc. By VICTOR SCHWEIZER. 8½ × 5¼. 68 Illustrations. Pp. 183. 10s. 6d. (London: Maclaren & Sons, Shoe Lane, E.C.)

IN this book the manufacture of resin oil is dealt with (the process being one of dry distillation), and chapters are given on making lubricators, resins, resinate varnishes, lampblack, printing inks, and typewriting inks. At the top of each page is the irritating inscription, "Distillation of Resins," although that subject does not occupy more than between thirty and forty pages. Distillation with superheated steam and destructive distillation are both described, the apparatus being specified with the aid of illustrations. Some of the information on the uses of rosin oils is new to us; for example, it is stated that "cod oil or train oil" is made by distilling rosin with caustic soda—it would be a fraud to describe such a product under names which indicate fish oils. The lubricants referred to are resinsates of calcium and sodium, and we are told that

to make the greases as cheap as possible the device is resorted to of filling them up to 50 per cent. of suitable mineral substances. It is, however, a mistake to add to the grease as much as half its weight of such bodies. As a rule the percentage should not exceed 20, and in all cases the filling must be perfectly mixed with the lubricant.

Two chapters are devoted to the manufacture of lampblack, and then follow descriptions of how printing inks are made, rosin oil and soap being among the ingredients used. The last chapter is one on typewriting inks, silk fabric being dipped into an ink composed of two parts each of aniline dye and glycerin with one part of water, and then passed through a rubber wringing-machine. The book has no index, and is therefore useless for ready reference; but those to whom the subject is of interest would probably make an effort to supply this deficiency by constructing an index of the chief items.

Deutsches Bäderbuch bearbeitet unter Mitwirkung des Kaiserlichen Gesundheitsamtes. Von Dr. F. HUNSTEDT, Dr. E. HINTZ, Dr. L. GRÜNHUT, Dr. C. JACOB, H. KAUFFMANN, Dr. K. KEILHACK, Dr. H. KIONKA, Dr. F. KRAUS, Dr. V. KREMSE, Dr. F. NICOLAS, Dr. TH. PAUL, Dr. F. RÖCHLING, A. SCHERRER, Dr. C. SCHÜTZE, Dr. A. WINKLER, Dr. E. ROST, Dr. G. SONNTAG, and Dr. F. AUERBACH. 11¼ × 8¾. Pp. 535. 15m. (Leipzig: J. J. Weber.)

THIS is an elaborate and painstaking account of the health-resorts and watering-places of Germany. It opens with articles on the geological, chemical, pharmacological, clinical, climatic, and administrative aspects of health-resorts and mineral waters, one of the minor articles being on the radioactivity of mineral springs. Then follows a detailed account of the spas, with analyses of the various waters, these being classified according to the properties of the spring—warm, cold, alkaline, bitter, ferruginous, etc. Sea-bathing takes up twenty pages, and resorts which depend on the purity of the air another thirty. Seven full-page coloured diagrams showing the strengths of the various waters are included, and two large folded maps, whereon are marked the position of the various spas and indications of the rainfall throughout the German Empire. A smaller edition of this volume was distributed to visitors to the International Congress of Pharmacy at Paris, but the book under review is three times as thick, and it must have taken much labour to get the information together. The scientists who are named as contributors are the chief authorities in Germany in their particular subjects, and the sections we have specially studied—the pharmacological and chemical—are written in an instructive and exhaustive manner.

THE VIBRATION CURE.—It is stated that "all who suffer from neuralgia will be glad to hear that it is curable by the repeated vibration of a tuning-fork, the point impinged on a sounding-board in connection with the affected place."

Practical Notes and Formulae.

The Odour of Creosote.

"LA CLINIQUE" states that the smell of creosote can be best hidden with oil of bitter almonds. When oil of eucalyptus or oil of vervain is used, the author states the product smells quite as disagreeably as the creosote.

Deodorised Iodoform Ointment.

THE formula of M. Opplez, which is stated to give a pleasant-smelling ointment, is as follows:

Lanoline	...	...	20	grams
Iodoform	...	...	2.2	grams
Roasted coffee (powdered)	...	...	1.25	gram
Lard	...	...	2.5	grams

Sterilising Catgut.

CRÉDÉ finds that collargol is very serviceable as a means of sterilising catgut. The catgut, rolled on a glass reel, is immersed in a 2 per cent. solution of collargol for about a week, during which time the vessel is shaken occasionally. The catgut is then washed in sterilised water, allowed to dry, and preserved in alcohol (95 per cent.)

Apomorphine Ampoules.

INJECTIO APOMORPHINÆ HYPODERMICA B.P., containing a trace of hydrochloric acid, keeps better than a solution without acid, but in time becomes green. This is due, writes M. Pégurier in the *Répert. de Pharmacie*, "to three causes—(1) oxidation by light, (2) free ammonia in the air, and (3) the alkalinity of the glass in which the solution is stored. In making apomorphine ampoules the author conducts the operation in red light, evaporates a small quantity of acetic acid in a capsule before beginning operations, and takes care to employ as neutral a glass as possible or to neutralise the alkalinity by means of a trace of acid. He found also that hydrochloric acid is a better preservative than citric or tartaric acid. The ampoules are best of yellow glass, and when filled should be stored away from light.

Oleum Morphinatum.

THE following formula is given in the "Journal de Pharmacie d'Anvers":

Morphine, freshly precipitated	...	1.00
Oleic acid	...	10.00
Almond oil to	...	1000.00

The alkaloid is dissolved in the acid by gently warming, and the oil is added to the solution.

Testing Urine for Sugar.

DR. F. W. PAVY, in a long article entitled "A Study of the Conditions Producing the Anomalous Reaction not infrequently met with on Testing Urine for Sugar with Fehling's Solution" in the "Lancet," repeats the formula for the well-known

Pavy-Fehling's Solution.

Copper sulphate (crystallised)	...	34.65	grams
Potassium sodium tartrate (Rochelle salt)	...	170.00	grams
Caustic potash	...	170.00	grams
Distilled water to	...	1.00	litre

The proportion of alkali has an important bearing on the success of the test.

Liquid Iodoform.

"LES NOUVEAUX REMÈDES" gives the following recipe for a liquid form of iodoform which mixes with water, alcohol, ether, chloroform, bisulphide of carbon, terpinol, eucalyptol, and creosote; it is stated to be readily absorbed by the skin:

Caustic potash	...	35	parts
Water	...	25	parts
Dissolve and add—			
Oleic acid	...	50	parts
Alcohol (95-per-cent.)	...	30	parts

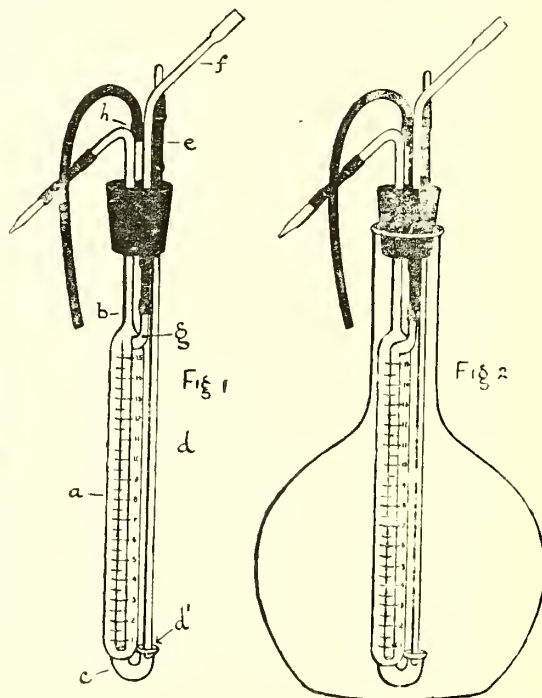
Then to this mixture, with constant shaking, add—

Sublimed iodine	...	30	parts
-----------------	-----	----	-------

A few drops of caustic potash solution will be needed to decolourise, after which it is allowed to rest for some days, and the supernatant liquid poured off.

Combined Wash-bottle and Pipette.

AT a meeting of the Royal Society of New South Wales Mr. J. W. Hogarth communicated the following particulars of a vessel possessing the combined advantages of a measuring-vessel and wash-bottle. Ordinarily when it is wished to dissolve or wash a precipitate with a known volume of solution, a measured quantity of the hot or cold liquid is poured into the filter containing the substance to be dissolved or washed, in which manner it is not possible



to stir up the precipitate and thereby offer as large a surface as possible to the action of the solution, consequently more liquid has to be used than is necessary to bring about the desired change; this excess of solution in some cases may be objectionable. If the liquid be delivered from a wash-bottle the objections to a great extent are obviated, but the volume of liquid used cannot be conveniently arrived at, especially when the filtrate has to be quantitatively treated, because any extra operation tends to introduce errors into the analysis. The apparatus, of which the following is a description, was designed to overcome the above objections. The measurements given are those of the actual apparatus made for use. Vessel *a*, which is of thin glass 13.3 cm. long and 1.4 cm. wide, is graduated in cubic centimetres and fractions thereof, tube *b* is 5 mm. in diameter and 13.3 cm. long from junction at top of *a* to the bottom where it just enters *c* (to bring out *b* more clearly for the purpose of photographing, it was partly filled with coloured liquid). Tube *g* is sealed on to *a*, and is connected to the lower extremity of *f* by a piece of stout rubber tubing. To use the vessel, rod *d* is slightly raised, the watertight joint at *d'* where rod *d* is ground into *c* is thereby broken, air is blown from the mouth through the rubber connected to *h*, which is in direct communication with the air of flask only, until the level of liquid rises to the desired mark in *a*; rod *d* is then released, when it is automatically forced back into position by the rubber *e* which is stretched from the disc on *d* to the outturned edge of a short glass tube through which *d* passes. This liquid is then delivered in the ordinary way by blowing into *f*; as soon as the liquid in *a* falls to the curved tube *c*, liquid ceases to pass up *b*.

The vessel, which was of 15 c.c. capacity, delivered any desired volume within that limit to $\pm \frac{1}{2}$ c.c. Fig. 2 shows the apparatus as it fits in an ordinary flask.

More Window-tickets.

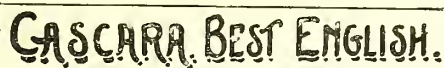
LAST year, when a correspondence and competition were going on in the *C. & D.* in reference to window-ticket writing, we received an interesting communication on the subject from Mr. G. W. Hean, Christchurch, New Zealand.



The size of the original is 12 in. by 9 in.; the lettering is blue-black with lavender coloured shading, except under the word "genuine," where red is employed.



The ground of this ticket is grey, while the lettering is, of the top line, black with red shading, and of the lower line violet. The combination of colours is attractive. The size of the card is 15 in. by 4½ in.



This card is 15 in. by 2½ in., and is grey with black lettering.



The lettering in this case is black, except the price, which is in red. The card is 15 in. by 2½ in.

Since then a parcel of showcards have arrived, and we reproduce some of the best examples. Mr. Hean taught himself the art of ticket-writing, and after a few months' practice was able to use a brush for lines, curves, or letters

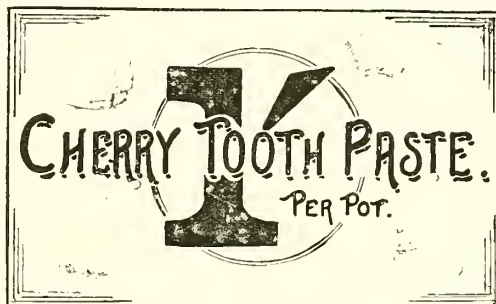
without any difficulty, lines only being needed to regulate the height of the letters. A feature about the examples we are reproducing is the use of coloured inks—red and blue shades chiefly—in combination with ordinary artists' black. Mr. Hean informs us that the coloured fluids are made by dissolving one packet of Diamond dye in a pint of hot water, and when the liquid is cool adding 1½ oz. gum acacia.



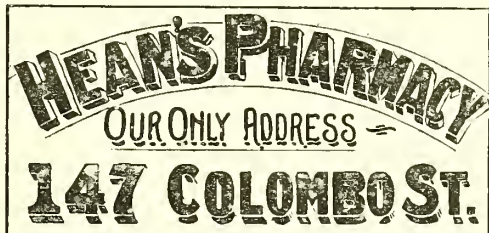
The lettering in this case is dark red, except the bottom line, where it is black. The size is 15 in. by 10 in.



This card is executed entirely in lavender ink, the ground being grey. The size is 15 in. by 10 in.



Opinions will be divided as to the effectiveness of this manner of displaying the price, but the size of the price lettering overcomes any doubts as to this point. The card is 14 in. by 8½ in.



The colouring on this ticket is brilliant, being graduated in the letters from pink to dark red, while the shading is in lavender. The card is 16 in. by 9 in.

Camel-hair pencils should not be used; it is much easier to work with duck and sable brushes. Mr. Hean's showcards vary in size, and we have indicated beneath each of the cards here reproduced the dimensions of the original.

With the Scottish Horse.

ACCORDING to military authorities, one of the most notable pieces of mimic warfare which have ever been done in this country was the military manœuvres held in the second half of June in Perthshire, when the two opposing forces were commanded by the Marquis of Tullibardine and Lord Lovat. The "Times" military correspondent said "the operations disclosed how deeply penetrated Scotland is by public spirit, how strongly military service appeals to the hardy people of the North, and how intense is the interest among all classes of the population in the maintenance of the old fighting traditions of a warlike race." The pharmacist whose portrait we give was one of those who took part in the manœuvres. He is Mr. Alexander Milne, Squadron Quartermaster-Sergeant of the 2nd Regiment of Scottish Horse.



Mr. Milne is in business in Maud, Aberdeenshire, and is ex-President, and at present Treasurer, of the East Aberdeenshire Chemists' Association. He went right through the manœuvres, and speaks highly of the experience gained. Mr. Milne served his apprenticeship with Messrs. Davidson & Kay, Aberdeen, after which he was with Mr. R. Thomson, Elgin. He then went to Edinburgh to study under Mr. William Duncan for the Minor, which he passed in 1892. Then he came to London, and had West-end experience with Messrs. Holroyd, Corbyn, Stacey & Co., Savory & Moore, and Rouse & Co. While in London he used to go into camp with the London Scottish. Returning to Scotland, he started in business in Maud, and joined the 3rd Volunteer Battalion of the Gordon Highlanders as a private in 1899, and was promoted sergeant in 1900. He resigned in 1903 in order to join the Scottish Horse, formed that year, and from trooper he was promoted to lance-sergeant in 1904, sergeant in 1905, and has since been made squadron quartermaster-sergeant, his squadron being credited with being the best mounted, the best horsemen, and the best shots in the regiment. In business Mr. Milne is not neglectful of local opportunities, and has specialised in agricultural pharmacy. There is no room in his district for the sealed-pocket gentlemen who think that it does not need a chemist's training to sell agricultural poisons. Mr. Milne has quite demonstrated the contrary.

GOLD COAST PRODUCTS.—In the annual Blue-book of this Colony for 1906 it is stated that 370 camphor-plants, raised in 1905 from seed imported from Japan, were "put out" at the Government experimental farm, and have made good growth, some of the bushes being 3 ft. in height. The cinnamon-plants have also made excellent progress; they are now 12 ft. high, and bore fruit during the year. A large number of seedlings were raised and sent to the stations at Tarkwa and Kumasi. Experimental plots planted with allspice (*Pimento officinalis*), Guinea grain (*Amomum Melcoguetia*), and lemongrass (*Andropogon sp.*) all did well, and show promise. Allspice and lemongrass oils have been distilled and samples have been sent to England for valuation.

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C., August 29.

A PART from the drug-auctions there has been very little trade in the markets this week, and alterations in prices are comparatively few. In chemicals the chief change is the drop in English and German refined camphor. Japanese crude has also been reduced by the monopoly. Citric acid is flat and lower owing to poor consumption demand. Cream of tartar is steady with a firmer tendency. Sulphate of copper is again easier. Quinine is dearer in second hands, but makers' prices are so far unaltered for tactical reasons. Acetanilide and phenacetin are firm. In drugs, opium is still tending easier owing to lack of business in Smyrna. Cascara sagrada is again firmer so far as regards spot prices, and new chamomiles are easier. All Moroccan products are held for very high prices, and business is thereby restricted. Coconut oil and shellac are lower. The following table gives the principal alterations of the week:

Higher	Firmer	Easier	Lower
Coca-leaves (Ceylon)	Aniseed oil (star)	Calumba	Camphor (Eng. and Germ. ref.)
Coriander-seed	Canary seed	Chamomiles	Copper sulph.
Gum Arabic (brown)	Gamboge	Opium	Chillies
Barbary		Orange peel	Citric acid
Honey (Jam.)			Coconut oil
Ipecac. (Minas)			Colocynth
Linseed oil			Menthol
Quinine (sec. hand)			Shellac
Sarsaparilla (grey Jam.)			Wax, Jamaica

Cablegram.

NEW YORK, August 29:—Business in drugs is quiet. Opium is steadier at \$7 per lb. for druggist's in single cases. Golden seal (*Hydrastis*) is strong and dearer at \$1.65 for spring-dug. Cascara sagrada is fully $\frac{1}{2}$ c. dearer at 10c. per lb. Quinine is firmer at 16c. per oz. in bulk. Senega is firm at 51c. per lb. Peppermint oil in bulk is unsettled at \$1.75. Refined camphor is lower at 93c. per lb. in barrels.

Heavy Chemicals.

The general demand in the heavy-chemical market both on prompt and forward account is good, and home trade is better with the holiday season coming to a close. Export business all round is active. Values are well maintained, and generally are on the firm side.

SULPHATE OF AMMONIA is quietly steady, and quotations forward remain on the basis of 2s. 6d. to 5s. per ton higher than present figures, which are nominally as follows: Beckton, 12l.; Beckton terms, 11l. 11s. 3d. to 11l. 12s. 6d.; London, 11l. 15s. to 11l. 16s. 3d.; Leith, 12l.; and Hull, 11l. 15s.

BARIUM-PRODUCTS are in good all-round demand, and are very steady owing to continued scarcity of the mineral witherite and higher prices which are asked for the raw mineral sulphate of barytes, while the high costs of fuel have, of course, an appreciable effect on this market. The mineral carbonate of barytes is still unquotable, since existing contracts take up all available supplies. Blanc fixe, pure precipitated sulphate of barium in paste-form, tends dearer, but is at present 6l. 15s. to 7l. 10s. per ton in 8/9 cwt. casks. Pure blanc fixe, dried and in powder-form, is scarce and very firm at 8l. 15s. to 9l. 15s. per ton in 7/8 cwt. casks. Second quality is now in rather better supply at 7l. 5s. to 7l. 15s. per ton.

Mineral sulphate of barytes ground is well sold ahead and is steady at 50s. to 110s. per ton, according to quality, quantity, and package. Chloride of barium is firmly maintained at 7l. 10s. to 8l. 10s. per ton in original casks. Pure precipitated carbonate of barium rules steady at 7l. 10s. to 9l. per ton in bags, and makers are somewhat behindhand with orders. Crude sulphide of barium, 70 to 75 per cent. in casks, is steady at 5l. to 5l. 10s. per ton. Hydrate of barium crystals is somewhat dearer at 13l. 15s. to 14l. 15s. per ton in 6/7 cwt. casks. Fused concentrated hydrate of barium, 56 to 60 per cent. BaO, solid, is 13l. 15s. to 15l. 5s. per ton in 5/6 cwt. drums, while the crushed quality in special drums or casks runs 30s. per ton extra. Nitrate of barium remains firm at 19l. 10s. to 20l. 10s. per ton for crystals in 6/7 cwt. casks, and 19l. 15s. to 20l. 15s. per ton for powdered.

American Drug-market.

New York, August 20.

Trade continues of a routine jobbing nature, but business is inclined to brighten up now that the vacation season is drawing to a close. There have been few price-changes during the week, and these are of little import. A firm tone is apparent in the market for indigenous drugs. Opium is quiet. Serpentry, senega, and golden seal are higher. Para copaiba is lower.

ARNICA-FLOWERS.—A fair business has been done at the recent advance to 12c. to 14c. Stocks are short, and little is available in the primary markets.

BAY OIL is meeting with some inquiry, and \$2.30 to \$2.45 has been paid. The firm tone of the market is attributed to the scarcity of leaves for distillation.

BUCHU-LEAVES are selling freely at 23c. to 25c. for prime green.

BUCKTHORN-BARK is dull and easy at 4½c. to 4¾c.

CAMPHER.—Refined continues quiet, with values tending downward. \$1 is the prevailing quotation for bulk, but prices are more or less a matter for individual negotiation.

CASCARA is gradually hardening; 9½c. is considered an inside figure. (See Cable.)

COCAINE is again lower, under the influences previously reported. \$2.20 is quoted for hydrochloride in bulk.

COPAIBA.—Central and South American, so-called pure is listed at 45c. to 50c., prices strictly nominal and varying as to the extent of the blending with the African product. The stock of Para on hand has been augmented by fresh arrivals, and an easier feeling is reflected in the local market, with quotations marked down to \$1.05 to \$1.10 as to quantity and seller. Copaiba oil is correspondingly lower at \$1.30 to \$1.35.

CUBEB OIL.—The varieties of berries suitable for the production of U.S.P. oil are not coming forward very freely, and the oil is dearer in sympathy. Business has been done at \$1.30 to \$1.35, with prospects of an advance on the inside figure.

DAMIANA.—Advices from the Lower Californian producing-centres still maintain their firm tone, and the limited stock is well held at 9½c.

HYDRASTIS.—Increased interest on the part of consumers has induced holders to take advantage of the short supplies in all markets and further advance prices. Quotations for the better grades range from \$1.60 to \$1.65.

JALAP is firmly held at 18c. to 22c., one dealer refusing to shade the inside figure on an order for 3,000 lb. There is little available for immediate delivery.

MENTHOL.—\$2.50 to \$2.60 is the usual range; second-hands quote \$2.45.

OPIMUM moves slowly into consuming channels. Quotations remain openly at \$7 for case lots. During the week there were indications that this figure could be pared down to the extent of 10c. Generally speaking, however, the market may be considered firm, and if consumers were to show the slightest intention of taking hold a higher level of prices would no doubt be reached.

PENNYROYAL OIL sells freely at \$3.00 to \$3.50.

PEPPERMINT OIL.—Reports of a poor yield in distilling centres are discredited here, and the market is quiet and easy. Quotations range from \$1.75 to \$1.85.

POKE-ROOT has been the subject of considerable inquiry; 6c. to 6½c. is asked. A number of lots changed hands at the outside figure.

QUININE.—Little has occurred to alter the course of the local market; the movement is confined within jobbing limits, and the undertone is rather easy. Manufacturers continue to quote 16c. for bulk in 100-oz. tins. 15c. is a nominal figure for round parcels in second-hands. Java sells at 14½c.

SENEGA is coming forward slowly, and dealers are firm in their views as to the values of spot goods. Sales have taken place at 50c., but most dealers refuse to shade 51c.

SERPENTRY is dearer at 40c. to 41c. as to quantity.

SPEARMINT OIL.—There is a reported offer of new crop in limited quantities at \$2, representing a decline of 50c. on current spot quotations.

SPERMACETI is held steady at 30c. to 31c. for block under a routine demand.

WINTERGREEN OIL.—True leaf-oil is scarce, and prices have been marked up to \$3.50 to \$4.00. Birch oil is also in limited supply, and quotations range from \$2.00 to \$2.50 for 1,000-lb. lots. It is doubtful whether unadulterated oil can be obtained at anything like the inside figures. Artificial is in brisk demand at 36c.

ACETANILIDE is firm at the advance noted last week.

ACID, CITRIC.—The poor demand and the approaching close of the principal season of consumption has led to a reduction of 1d. per lb., sellers quoting English at 1s. 10½d., and for small quantities 1s. 11d., while foreign is also cheaper at 1s. 10¼d. to 1s. 10¾d.

ACID, OXALIC, is firm at 4d. per lb. net, delivered free London.

ANISEED.—Russian is quoted in ton lots at 23s. 9d. per cwt. c.i.f. gross weight for shipment from Hamburg. The London market is firm at 22s. per cwt. for Russian, and for good Spanish 35s. is quoted on the spot. In the drug auction twenty bags of dark Russian found buyers at 20s. per cwt.

ANTIMONY.—For shipment from the Continent the lower prices of 32s. to 32s. 6d. c.i.f. are quoted for Chinese crude lump in one-ton lots. In London 32l. to 32l. 10s. per ton is quoted for crude Japan, and regulus is quoted 36l. to 38l.

CAMPHOR (CRUDE).—Chinese on the spot is reported rather steadier, with buyers at 205s., after business had been done down to 200s. spot, and for arrival 215s. to 220s. c.i.f. is quoted. The Japanese monopoly have reduced their prices to 236s. to 246s. c.i.f. terms, according to grade. In the drug-auction ten cases Ceylon were catalogued, but had not arrived in time.

CAMPHOR (REFINED).—On Friday last the English refiners reduced their prices by 5d. per lb., and now quote bells at 3s. 5d. and flowers at 3s. 4d. per lb., 1-cwt. lots of bells being subject to a reduction of ½d. and flowers 1d. per lb. Tablets are quoted at proportionately higher prices. At the same time the German refiners also reduced their prices, the basis-price for bells in ton lots being 3s. 2½d. per lb., and 1-cwt. lots 3s. 3d. c.i.f. terms net weight, without tare for paper. The reduction is owing to Japanese competition, further sales of 1-oz. tablets having been made for September-October shipment at 2s. 6d. per lb. c.i.f. for not less than 50 or 100 cases with further buyers. On the spot 3s. is quoted for 1-oz. tablets.

CANARY-SEED is firmer owing to reports that the Turkish crop is short. Good Morocco is offering at 36s. per quarter on the spot, and cleaned River Plate at 34s. c.i.f. terms.

CARAWAY-SEED is quiet, and values are unchanged at 32s. to 33s. per cwt. for ordinary to good Dutch on the spot.

CHAMOMILES.—It is somewhat difficult to gauge the outlook for this article at the moment, as the crop prospects vary from day to day. At the moment prices are again easier, seconds offering for September shipment at 77s. net, and on the spot old No. 1 flowers have been sold at 90s. in small lots. A fair crop of seconds seems assured, but it must not be forgotten that few consumptive orders have yet been placed, added to which there are practically no old stocks to work upon, the three previous years' crops having been below the average. France, an important buyer, has, as yet, bought little.

CINNAMON.—The usual quarterly sales were held last Monday, 838 bales being catalogued. There was a fair demand, but as the bidding in general was below holders' expectations, the bulk was bought in, only 125 bales being sold at steady rates to occasionally a halfpenny per lb. advance on thirds and fourths. The finest qualities were nearly all bought in, only a few bales worked being sold, good firsts at 1s. 1d. to 1s. 2d. per lb., fair at 11½d. to 1s., good thirds at 11½d. to 1s., fine fourths at 10d., good 9d. to 9½d. Of unworked, only a few bales of ordinary fourths sold at 8½d. per lb., the remainder being bought in, firsts at 10½d., with 10d. bid, seconds at 10d. with 9½d. bid, and thirds at 9½d. with 9d. bid. Clippings and pieces sold at 10d. per lb. for fine quality.

COPPER SULPHATE is again easier on the spot at 29l. 5s. per ton. Liverpool brands for September delivery are quoted

27l., October-November 26l. 15s., and next spring delivery 25l. 10s. per ton.

CORIANDEER-SEED is dearer for Morocco owing to suspension of shipments from Casablanca. Good quality has been sold at 9s. 6d. per cwt. on the spot.

CREAM OF TARTAR is steady, with a firmer tendency, 99 per cent. to 100 per cent. quality (free from lead) being quoted 83s., 98 per cent. at 81s., and 95 per cent. 79s. 6d. per cwt.

CUMIN-SEED is quiet. Malta is quoted 55s., Morocco 42s. 6d. to 45s., and East India 40s. per cwt., but there is very little offering of any kind.

ERGOT.—Sound Russian of the old crop for prompt shipment from Hamburg is quoted 10½d. per lb. in half-ton lots. That market appears to be bare of Spanish, but there are offers of old crop from Spain at 1s. 2¾d. to 1s. 3d., and of the new crop for September shipment at 1s. 4¾d. to 1s. 5d. c.i.f.

FENUGREEK.—Morocco is held for 12s. per cwt., but no business is reported.

GAMBEIR.—Small sales of good No. 1 quality have been made at 31s. spot.

KOLA.—At the spice-auctions 15 packages of green West Indian were bought in at 8½d., and two bags of dried sold at 3d. per lb.

LIME ACETATE and acetates remain extremely high, and there is no prospect of prices receding for some time to come.

LINSEED firm, but unchanged in price at 48s. to 51s. per quarter for good clean.

LYCOPDIUM.—Thrice-sifted Russian is quoted 1s. 11½d. per lb. c.i.f. terms.

MATICO.—Prices have been reduced on the Continent, 8d. per lb. c.i.f. being quoted for new arrivals.

OIL, COD-LIVER.—Our Bergen correspondent writes on August 26 that finest non-congealing Lofoten cod-liver oil has been sold at 71s. per barrel f.o.b. Bergen, and holders are firm, refusing business at lower prices. The exports from Bergen up-to-date amount to 7,519 barrels, against 8,986 barrels at the corresponding date of last year. In London agents quote from 75s. to 77s. c.i.f. terms.

OILS, FIXED.—Both Cochin and Ceylon *Coconut* are lower on the spot at 43s. and 38s. per cwt. respectively. *Linseed* has advanced to 23s. 9d. spot in pipes and 24s. in barrels. *Cotton seed* is firmer at 28s. 6d. for crude, 29s. 6d. for ordinary pale refined, and 32s. for sweet refined. *Rape* is steady at 32s. 6d. spot for ordinary brown, and 34s. 6d. for refined. *Lagos Palm* is unchanged at 32s. *Turpentine* is dull at 41s. 3d. for American, and *Petroleum* is unaltered.

OPIMUM.—Our Smyrna correspondent writes as follows: SMYRNA, August 16.—Our market has been again quiet, and no sales have been made. A limited number of weak holders and outside speculators may be induced to sell cheaper, but the quantity does not exceed 50 to 60 cases. The arrivals in Smyrna to date amount to 1,013 cases, against 2,024 at same period last year.

PHENACETIN is very firm, and several makers are not anxious to sell at present prices, having sufficient business in hand. Prices range from 2s. 7d. to 2s. 10d. as to quantity for B.P. crystals or powder.

PIMENTO is firm, with spot sales at 3½d. per lb. for fair.

QUILLATA.—Rather easier prices are asked for whole bark from the Continent, viz., 25l. 10s. to 26l. 10s. per ton, according to quantity and port of destination. Cut sells at 29s. in 5 ewt. lots.

QUININE.—Much to the surprise of everybody the makers have not advanced their prices as anticipated, although there was a rise of 10 per cent. in the bark unit last week. It is pointed out that keen competition prevailed at the auction, and, in view of the higher prices paid, manufacturers are quite justified in raising the price of quinine. One the other hand, there is an auction of quinine (50,000 oz.) to be held at Amsterdam to-morrow (Friday), and the syndicate of German makers see no reason why they should help "outside" makers to secure better prices, which they certainly would do by an official advance. A firmer tone has been apparent in the second-hand market, a small business having been done last week at 8½d. spot for B. and S. and/or Brunswick, and at 8½d. for December delivery, but the few sellers now ask 8½d. The opinion prevails that we shall see higher prices for quinine.

SCAMMONY-ROOT.—A shipment of about 10 tons Mexican has arrived in Hamburg, the quotation for which, in ton lots, is 34s. per cwt. gross weight for prompt shipment.

SHELLAC is flat, and prices are again lower in all positions. Spot has declined about 6s. to 8s. per cwt., the small sales including fair TN Orange on the basis of 190s. to 192s. 6d. For arrival, business has been done in October shipment at 155s., and for October-November sellers quote 150s., and October-December at 148s. c.i.f. Futures have declined considerably, sellers of October quoting 168s., and for December 160s. to 155s. has been paid.

SPICES.—At auction no *Ginger* of any description was offered. Privately business is quite unimportant. Of *Pepper*, fair Singapore *white* in cases was bought in at 11d. per lb., good Muntok at 7d. to 7½d., and Sarawak at 6½d. per lb. Privately the market remains quiet, with sellers of Singapore for September-November shipment at 6½d. c.i.f. *Chillies* were 1s. 6d. lower at auction, Mombassa partly selling at 15s. 6d. for fair red. *Capsicums* were slow of sale, Bombay being bought in at 25s. and Ceylon at 20s. per cwt. Japanese *Cassia* was steady at auction, 20 bags realising 21s. per cwt. for broken. Both *Nutmegs* and *Mace* were easier, 11 cases of the latter finding buyers at 1s. 7d. for dull, partly wormy Penang; 5 cases of bright red Java sold at 1s. 3d., dull ditto at 1s. 2d. West Indian mace sold at 1s. 2d. to 1s. 3d. for ordinary fair to red; 1s. 4d. to 1s. 5d. for fair mixed and pale, and from 11d. to 1s. 2d. for broken. Five cases Penang *Cloves* were bought in for 1s. 6d. for good picked; privately Zanzibar cloves continue slow, with arrival sales of September-November shipment at 5½d. c.i.f. delivered weight, but sellers subsequently asked 5½d. c.i.f. The delivery market has been nominal.

VANILLIN.—For pure 100 per cent. crystals 15s. to 15s. 6d. per lb. is quoted. Adulterated vanillin is being freely offered to provincial buyers as "commercial" quality, and is knowingly purchased for certain purposes.

WAX, JAPAN, is steady at from 58s. 6d. to 59s. spot for good squares.

London Drug Auctions.

At the auctions of first and second hand drugs the demand was better than had been anticipated, a moderate quantity of goods changing hands, but prices with a few exceptions tended in buyers' favour. Cape aloes brought steady prices, but Curaçao were neglected and tended easier. *Buchu-leaves* and *Sumatra benzoin* were slow of sale, the demand being chiefly for Palembang. *Colocynth* sold at lower prices for common, but for cardamoms, which are somewhat scarce, full rates were paid. *Cascara sagrada* sold well without reserve, and for Ceylon coca-leaves firmer prices were paid. *Huanuco-bark* sold steadily, *Calisaya* being cheaper. *Calumba* was easier. *Gamboge* is held for firmer rates, and for Jamaica honey, which is comparatively scarce, an advance of 1s. to 1s. 6d. was paid. *Minas ipecacuanha* recovered from the slump of a fortnight ago, and further forced sales of menthol were made at a slight reduction. *Myrrh* is plentiful and neglected. *Orange-peel* was forced off at a slight decline. *Rhubarb* was quite neglected, but is firmly held. *Grey Jamaica sarsaparilla* improved 1d. to 2d., native Jamaica being perhaps a shade easier. No new *Tinnevely senna* was offered. *Turmerie* remains easy, and for Jamaica beeswax 5s. less was accepted. The following tables show the quantity of goods offered and sold.

	Offered	Sold		Offered	Sold
Albumen	7	0	Buchu	41	4
Alkanet-root	6	0	Calumba	379	100
Aloes—			Canella alba	6	0
Cape	57	31	Cannabis indica	44	0
Curaçao (bxs)	50	22	Cantharides (China)	2	2
" (gourds)	300	0	Cardamoms	136	98
Socotrine	10	0	Cascara sagrada	602	502
Ambergris (tins)	4	1	Cascarilla	41	2
Ammoniacum	10	0	Cashew-nuts	76	23
Anised	20	20	Chicle	12	0
Annatto-seed	93	0	Chiretta	103	0
Areca	14	0	Cinchona	74	74
Asaf-tida	50	0	Coca-leaves	63	58
Bael-fruit	2	0	Cochineal	7	0
Balsam—			Colocynth and pulp	19	17
copaiba	2	0	Coriander	25	0
to'u	22	0	Croton-seed	15	15
Benzoin—			Cubebs	67	15
Palembang	110	43	Cutch	100	0
Siam	1	0	Cuttle-bone	40	0
Sumatra	197	10			

Offered Sold		Offered Sold	
Dragon's-blood—		Oil, lemongrass ...	52 ... 0
lump	5 ... 0	patchouli	5 ... 0
reed	11 ... *2	wood	38 ... 0
Zan. drop	5 ... 0	Olibanum	72 ... 0
Elemi	18 ... 2	Orange-peel	42 ... 31
Ergot	22 ... *5	Orris	29 ... 0
Fennel-seed	124 ... 0	Papain	7 ... 0
Fenugreek-seed ...	20 ... 0	Patchouli-leaves...	10 ... 0
Galangal	35 ... 0	Puree	1 ... 0
Galls (Jap.)	1 ... 0	Rhubarb (China)...	58 ... 0
Gamboge	11 ... *1	Sai darach	15 ... 0
Gum—		Sarsaparilla—	
arabic	111 ... 0	grey Jam.	9 ... 9
grass-tree	25 ... 0	Honduras	3 ... 0
Honey—		Lima-Jamaica ...	5 ... 5
Jamaica	103 ... 93	native	14 ... 9
Mauritius	2 ... 0	Scabell	12 ... 12
Insect powder	11 ... 11	Seedlae	53 ... 0
Insect-wax	1 ... 0	Senna and pods—	
Ipecacuanha—		Alex.	132 ... 3
Cartagena	18 ... 0	Tinnevely	53 ... 12
Minas	12 ... 12	Soy	45 ... 0
Kamala	6 ... 0	Squill	109 ... 1
Kapok	1 ... 1	Sticklac	122 ... 0
Kino	10 ... 0	Sugar-of-milk ...	5 ... 0
Kola	12 ... 12	Tamarinds (W. I.)	24 ... 24
Lime-juice (pns.)...	2 ... 0	Tonka beans	1 ... 1
Lithia, carb. (lb.)	84 ... 0	Turmeric	312 ... 90
Mastic	8 ... 0	Turtle, dried	4 ... 0
Menthol	21 ... 21	Wax (bees)—	
Myrrh	117 ... 0	Abyssinian	106 ... *20
Oil—		African, West... 10 ... *10	
camphor (cr.) ...	76½ ... 1½	East Indian	53 ... 8
cassa	4 ... 0	Jamaica	51 ... 43
cinnamon leaf ...	1 ... 1	Saffi	7 ... 0
citronella	23 ... 0	Spanish	6 ... 0
clove	2 ... 0	Zanzibar	179 ... 0
eucalyptus	91 ... 0	Wax, Carnauba ...	30 ... 0

* Sold privately.

ALOES.—Cape sold at steady prices, including good bright hard firsts at 35s. 6d., fair ditto at 34s. 6d., and fair seconds, slightly drossy, at 30s. "usual tares." Fair hard bright sold on "estimated tares at 30s. 6d. to 32s., dull and soft at 28s. 6d. to 29s. 6d., and ordinary drossy and soft at 26s. to 27s. 6d. per cwt. 300 gourds of Curaçao were bought in, the price for good liver not transpiring; fifty boxes also offered of which about half sold, including good liver at 55s., fair at 49s. subject, and dull liver at 41s. per cwt. Ten kegs of fair Socotrine were limited at 90s. per cwt.

ANNATO.—Slow of sale and plentiful at from 2½d. to 4d. for dull brickly to good red East Indian.

BALSAM TOLU.—A parcel of large tins containing hard reddish to soft and partly-drossy balsam was bought in at 1s. 2d., the value being 1s. per lb.

BENZOLIN.—Quiet. About thirty cases of fair Palembang seconds in small tins sold at 40s. per cwt., being steady, and for a further three cases, containing eight tins each, 39s. subject was paid; four cases in large block also changed hands at 40s. for fair. Sumatra was firmly held, but only a few packages sold publicly, including a case of good almondy seconds at 8l., good fair at 7l. 7s. 6d., and thirds at from 5l. to 5l. 5s. per cwt.

BUCHU.—A rather heavy quantity was brought forward, but only small sales were made at about previous prices, including fair round green at 8d. Good green were held for 9½d., fair "longs" at 7d., and "ovals" at 6d., a bid of ½d. less being refused for the latter.

CALUMBA sold cheaply, 100 bags of fair pale yellowish sorts being disposed of at 10s. per cwt.

CANELLA ALBA.—Fair pale was limited at 60s., at which private sales have been made.

CANNABIS INDICA.—Privately the Madagascar variety is quoted from Hamburg in single cases at 1s. 11d. per lb. e.i.f. In auction genuine Bombay tops were held at 4s. 3d. per lb.

CANTHARIDES.—Privately old crop Russian for shipment from Hamburg are quoted 2s. 11d. per lb. e.i.f. terms. In auction a case of fair Chinese sold without reserve at 1s. 7d., and a case of slightly mouldy at 1s. 6d.

CARDAMOMS met with a fair demand at generally firm prices, the following rates being paid:—Ceylon-Mysore,

bold long palish to pale, 1s. 3d. to 1s. 11d.; medium ditto, palish to pale, 1s. 5d. to 1s. 7d.; small and medium, 1s. 3d.; brown and split, 1s. 3d. to 1s. 4d.; small dull, 1s. 3d.; and seed, 1s. 10d. to 2s. per lb. Nine cases fair Bombay seed were held at 2s. 6d. per lb.

The exports from Ceylon from January 1 to August 5 were as follows: 1907, 463,877 lb.; 1906, 443,383 lb.; 1905, 456,748 lb.; and 1904, 606,059 lb.

CASCARA SAGRADA.—After the close of our last report several carloads were sold at 50s. per cwt. e.i.f., and further spot sales were made at 50s. also. This week the market (up to Thursday) had been quieter, owing to a disposition to wait the result of the auction-sales "without reserve." These, it appeared, went off better than anticipated, 190 bags of two-year-old selling at from 50s. 6d. to 51s., gross for net, no allowances, and for a further 312 bags of 1904 crop (not without reserve), 50s. net, gross for net, was paid. At the close spot sellers ask 52s. 6d., but probably a shade under will buy.

CASCARILLA.—Good bright part silvery quill was limited at 80s. per cwt., and for siftings 52s. 6d. was wanted, at which private sales have been made.

CASHEW NUTS sold at lower prices, twenty-three cases of fair Bombay being disposed of at 40s. per cwt.

CINCHONA.—Thirty-two serons of Huanuco sold at 7½d. per lb. for good bright quill, and for fair broken Loxa 5d. was paid. A nice parcel of good flat cultivated Calisaya bark sold at 9d. per lb. for sound, and at from 3d. to 5½d. for country and sea-damaged.

COCA LEAVES, rather dearer, 58 cases Ceylon realising 9½d. to 10d. per lb. for fair greenish leaf, 5d. to 6½d. for middling brown to bronzy, and 3d. for common dark brown.

COLOCYNTH.—Lower. Five casks of ordinary palish Turkey apple sold at 5d. per lb., and five casks common brown broken at 4d. Three cases small to bold very seedy apple realised 6d. without reserve, and several other oddments sold subject. Fair Turkey pulp was held at 2s.

CROTON-SEED.—For fifteen bags of fair darkish Colombo the firm price of 52s. 6d. was paid.

CUBEES.—Fifteen bags of good, slightly stalky, sold at 42s. 6d. per cwt.

DRAGON'S-BLOOD.—A parcel of *Reed* was offered, of which part had been sold privately at 9l. per cwt.

ELEMI.—Privately, 50s. 6d. to 53s. per cwt. e.i.f. is quoted for shipment from Hamburg as to quality and quantity. In auction a small sale of fair pale was made at 50s. per cwt. subject.

GAMBOGE being scarce, the price asked for four cases of good Siam pipe, slightly blocky and damp, had been advanced to 18l. per cwt. A further two cases offered, of which one had been sold privately at 17l. for good, rather run Siam pipe part very small.

GUM ARABIC.—Privately sales of brown Barbary gum are reported at 42s. 6d., being dearer. In auction offerings of Soudan and Australian gums were bought in.

HONEY.—The market for most descriptions of honey is very firm, owing to the poor European crops, and by the autumn higher prices are anticipated. Guaranteed pure white Italian honey finds buyers at 35s. e.i.f. In the drug auction, values of Jamaica advanced 1s. to 1s. 6d. per cwt. Good set white sold at 30s., set and setting white and yellowish 25s. to 27s., fair bright liquid 23s. 6d. to 24s., darker ditto, 22s. to 23s., and common dark liquid 17s. per cwt.

INSECT POWDER.—Eleven kegs Dalmatian powder sold without reserve at 26s. per cwt.

IPECACUANHA.—No Matto Grosso (Rio) was offered to-day, and privately 6s. 6d. is quoted by one first-hand holder, but probably this price could be shaded elsewhere. Twelve bags Minas offered and sold at 5s. 8d. for fair cultivated (one lot 5s. 9d. for good bold), being a recovery of fully 4d. per lb. on the "without reserve" prices paid at the previous auction. No Cartagena was sold; for two bales fair grey, the holder was firm at 4s. 9d., a bid of 4s. 5d. being refused, and two other parcels were bought in at 5s. to 5s. 2d.

KAMALA.—For rather sandy 1s. 2d. per lb. was asked.

KINO.—Dull slightly blocky Cochin grain was limited at 7*d.* per lb. and fine red at 1*s.* 6*d.*

KOLA.—Steady. Three packages fair, slightly mouldy West Indian sold at 2½*d.* per lb., and a further 9 cases dark at 2¾*d.* also.

MENTHOL.—In auction 21 cases of Suzuki and Yazawa sold without reserve at from 7*s.* 2*d.* to 7*s.* 4*d.* per lb., being a reduction of 2*d.* to 4*d.* on private rates.

OIL, CAMPHOR.—An oddment of 1½ cases sold without reserve at 41*s.*, and for 10 cases of white essential (sp. gr. 0.896) a bid of 50*s.* is to be submitted.

OIL, CASSIA.—Containing 74 per cent. e.a., was held at 5*s.* 10*d.* per lb., at which the broker intimated sales had been made.

OIL, CINNAMON LEAF.—Small sales were made at 2½*d.* per oz. for Ceylon.

ORANGE-PEEL.—Lower. A parcel of 19 cases Malta and Tripoli strip sold cheaply without reserve at 5½*d.* (one lot 5¾*d.*) per lb. for fair quality. For a further 9 cases of rather duller strip, also without reserve, from 4½*d.* to 4¾*d.* was paid. Another broker asked 7½*d.* for dark strip.

RHUBARB.—No business was done publicly. Medium and bold flat orange-coated Shensi with seven-eighths good pinky racture was bought in at 2*s.* 9*d.* to 3*s.*, and trimming root at 3*s.* 3*d.* Bold flat Canton at 2*s.* 2*d.*, medium at 2*s.*, and common rough round high-dried at 10½*d.* to 11½*d.* per lb.

SARSAPARILLA.—Genuine grey Jamaica was scarce, and 1*d.* to 2*d.* dearer, only 8 bales being offered and sold at 1*s.* 7*d.* to 1*s.* 9*d.* per lb. for fair, part slightly coarse. Five bales Lima-Jamaica rather chumpy sold at 1*s.* 4*d.*, and grease-damaged at 1*s.* 3*d.*, and eight packages of ordinary dull red mixed with yellow Native Jamaica sold at 1*s.* per lb., while a bale of dull grey mixed sold at 10½*d.* Privately Honduras is quoted 2*s.* 6*d.* per lb.

SCABLAC.—Twelve bags fair Madras realised 7*l.* 12*s.* 6*d.*, being steady.

SENNA.—There is still a marked absence of Tinnevely senna, but at the next auction a fair quantity may be offered. Small sales were made in auction at 2½*d.* for medium greenish leaf, and several sea-damaged lots were disposed of at 2*d.* Alexandrian broken leaf was limited at 3½*d.*, sittings at 3*d.*, and fair pale pods at 9*d.* per lb. Three bales sea-damaged sold without reserve.

SQUILL.—Good pale is plentiful at 3½*d.* per lb., and for one bag of common dark ½*d.* was paid without reserve.

TAMARINDS.—A parcel of 24 packages dry Antigua sold at from 13*s.* to 15*s.* per cwt. in bond.

TONKA BEANS.—A case, all that was offered, sold without reserve at 10*d.* per lb. for ordinary foxy Para.

TURMERIC.—At the drug auction 90 bags fair Madras fingers realised 18*s.* 6*d.* to 19*s.* without reserve. Privately Cochin split bulbs are somewhat scarce on the spot, sellers asking 13*s.* 6*d.*; small sales of Bengal have been made at 20*s.* spot.

WAX, BEES'.—Jamaica was in demand at a decline of 5*s.* per cwt., seventeen packages finding buyers at the all-round price of 7*l.* 10*s.* irrespective of quality, and for a further twenty-two packages offered by another broker 7*l.* 10*s.* was also paid. A parcel of fifty-six bales good red Abyssinian, slightly drossy, was offered, of which ten had been sold privately at 7*l.*, this price being asked for the remainder. Eight cases Bombay block sold without reserve at 82*s.* 6*d.*, and for good bleached Calcutta 8*l.* 5*s.* was wanted, at which sales have been made privately. Good even brown Zanzibar was bought in at 7*l.* 5*s.*, bleached Spanish at 7*l.* 15*s.*, and Saffi at 5*l.* 15*s.* per cwt.

Bulgarian Otto of Rose.

Our correspondent in Bulgaria, under date of August 20, writes us as follows: "It has never been the purpose of your correspondent either to be biased and personal in his communications, or even to enter into any personal polemics whatever. For this reason alone the letter of Mr. Christo Christoff, published in your issue of August 17, would have passed without the slightest notice. But I feel it my duty to refute the extraordinary statements out of regard for your readers. What he communicates to you are facts, and facts are never refuted by offhand assertions—no matter how boldly

made or what name they bear. If the official totals of the Philippopolis Chamber of Commerce put down the present crop at 2,500 to 2,600 kilos. (about 91,000 oz.), they only confirm the estimate of your correspondent, published in your issues of June 29, July 13, and July 20, and not at all Mr. Christoff's own circular letter of last June estimating the crop at 2,983 kilos. (about 107,000 oz.). If Mr. Christoff does not wish to take into consideration the old stock in the hands of fifteen or sixteen jobbers, as 'dating back more than fifteen years, and in consequence too old to be sold even as second quality ottos,' why did he himself buy last April the old otto of one of these very jobbers, whose otto he condemns now? Mr. Christoff further states that 'more than four-fifths of the crop has already been bought by the exporters, and that in fact only three villages remain whose otto has not been sold simply because they ask 30*s.* per oz. for their otto.' To make such a wild statement in an English journal is either to talk nonsense or to show total ignorance of what is transpiring here. Up to this moment hardly more than two-fifths of the new crop's output has been bought up. Not only three villages alone remain unsold, but more than thirty-three villages and nearly all the very largest rose villages in the whole district. The county of Brezovo remains almost wholly intact. In eleven villages in this county there still remains over 19,000 oz. of otto. In the county of Karlovo, also, all the largest rose villages remain unsold. Twelve of the largest villages in this county have an output of about 20,000 oz. In another ten villages in the county of Kazanlik there still remains for sale over 11,000 oz. This alone makes a grand total of about 50,000 oz. new otto of rose waiting for customers. Were we to count all the little lots of otto left here and there in the hands of stingy growers and all the otto in the hands of the small jobbers, this grand total would increase even to 60,000 oz. If this remaining otto makes only one-fifth of the rose output in Bulgaria, the total output of otto must have been three times larger than Mr. Christoff's own estimate. It is not true also that the remaining rose villages ask the equivalent of 30*s.* per oz. for their otto. Three or four weeks ago, when Mr. Christoff was offering 25*s.* 6*d.* to 26*s.* 6*d.* per T. oz. for other people's otto, there were growers, encouraged by the corner's wild rush to buy otto at fancy prices regardless of grade or quality, who asked 28*s.* and even 30*s.* per T. oz., but to-day not one grower dares to ask more than 25*s.* per T. oz., and in another three or four weeks, if Mr. Christoff and his associates of the corner fail to unload, our market will further decline to normal prices. As the cornering parties no longer act and pull together and no longer back their highest opening prices, it is only too natural that our market will be at a standstill, with a downward tendency. One instance as an illustration: At Zinjirli, buyers gave 24*s.* 6*d.* per T. oz. three weeks ago, but the other day they reduced their old offer and bought at only 23*s.* per T. oz. In this age of wide steam and electric communication, what happens to-day in one corner of the globe is known to-morrow all over the world, and it is useless to keep interested people long in the dark or in error."

Dominican Limes.

The Dominican correspondent of the "West India Committee" circular writes on July 25 that Messrs. L. Rose & Co., Ltd. (Bath estate), had not set up their citrate-of-lime factory, and were buying lime-juice and limes from planters and peasants. This would immediately benefit the island, says the writer, as their prices were strictly based on the price of concentrated lime-juice, with the result that peasants were getting better returns, and the boon this would be to new planters was obvious. Where transport was not prohibitive a lime-plantation could be established without the large expense of a boiling or citrate-making plant being faced before getting any returns.

Cascara Sagrada.

We have already pointed out that the great scarcity of labour on the Pacific Coast is likely to have a serious effect on the peeling of cascara sagrada this year, and, judging from the reports appearing in the American Press, the situation has recently become much more acute. The "World" reports that 20,000 men are needed by the lumber-mills in Eastern Washington, Oregon, and Northern Idaho, and as many more are wanted by the Northern Pacific and other railroad companies. But although agents are scouring the country for labour they are not able to obtain half the number required. Lumber-men in the woods received from \$45 to \$75 per month, and board, while in the mills the scale ranges from \$3.50 to \$10 a day! This scarcity, it is said, will also affect the gathering of other indigenous drugs, such as serpentary, spring-dug golden seal, senega, etc., which are more or less dependent on casual labour.

Among the exports from Ningpo last year were 109,943 cwt. of alum, 64,328*l.* worth of native medicines, and 5,671 cwt. of ground-nut oil.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. Publication of letters does not imply our agreement with the arguments or approval of the statements therein. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects presumably of interest to our readers generally. Letters received after the early posts on Wednesday cannot as a rule be dealt with in the current week's issue.

BUSINESS INFORMATION.—We have very full records of the makers or agents for articles and products connected with the chemical and drug trades, and supply information respecting them by post to inquirers. Inquiries regarding any articles which cannot be traced in this manner are inserted under "Information Wanted."

The Trieste Sponge-trade.

SIR,—I notice in your issue of August 17, p. 295, a paragraph headed "Trieste Sponges," from which it might be inferred that the factories referred to are supplying sponges in such a manner as to compete successfully with sponges of any other origin. This is far from being the case, as my company finds no difficulty in overcoming any competition that may be offered by the factories alluded to. In proof of this I may mention that none of these factories has any branch outside Trieste, whereas we not only have large and prosperous branches in most of the countries in which they are supposed to be competing "with increasing success," but have actually this year opened a branch in Trieste itself. Although we have done business there for many years through our Genoa branch, our trade has increased recently so much as to render this new enterprise necessary. Facts speak louder than words, however, and although comparisons are odious they are sometimes useful. If a comparison were made between the stocks held by these Trieste factories and those held by my company at its principal branches in Paris, Brussels, Cologne, and Genoa, quite apart from its larger branches in London, where its stocks are larger than any others in existence, it would be at once apparent what my company is doing with its capital of 300,000*l.*, and in what manner its incomparable resources enable it to trade successfully all over the world.

Yours faithfully,

ERNEST CRESSWELL,
Director of International Sponge Importers, Ltd.,
Cresswell Brothers Branch.

Repairing Hot-water Bottles.

SIR,—Referring to a reply you recently gave to a correspondent, may we point out that the method of repairing hot-water bottles with the cycle-tyre materials is not satisfactory?—for as soon as hot water is used the rubber softens and off comes the patch. It is for this reason that vulcanising is adopted for motor-car tyres, because when the tyres become warm (as they do with fast running) the patches loosen and are blown off when merely stuck with rubber solution. There is a process known as cold vulcanising. Can you supply particulars of this process, and say where the chemicals can be obtained? Can you suggest a good solvent for pure vulcanised rubber such as the teats sold in the drug-trade? We have tried all the usual solvents for raw rubber without effect. Carbon tetrachloride has the greatest effect, and causes the rubber to swell, but does not dissolve it.

Yours truly,

High Wycombe,

LANSDALE & Co.

The Legislative Position.

SIR,—What does Mr. Reid, of Dumfries, know of English trade difficulties? How comes it that we in England who are in the thick of it have to listen to the "lengthy sage advices," as Burns has it, from a Scotch chemist who presumably has, like the rest of Scotland, a fair proportion of doctors' dispensing, while in England nine-tenths of such dispensing is done by doctors themselves? Mr. Reid is wrong on a great many points. He speaks of "law—that is, justice—knocked down to the highest bidder." But law is

not always justice: in fact, it is most frequently alluded to as law and justice, hence we have Boots, Ltd., firmly established by law, which some folk say is not justice.

Again, Mr. Reid is wrong when he says that "Jay Mack suggests that Parliament knocks down law to the loudest shout."

Mr. Reid some years ago made a very trenchant attack on Parliamentary procedure and also made the very sensible suggestion of an Imperial Council to take the place of our wasteful party system. What I and many others do object to is the obstruction in Parliament by the Pharmaceutical Society; they cried for this Select Committee, and when it seemed likely to be conceded Mr. Reid's voice was raised, again suggesting delay until the Society had time fully to coach and instruct M.P.s as to the chemists' real demands.

Quite evidently Mr. Reid and some others were a bit anxious: they knew if our case went before that Special Committee, the drug-stores and the Agricultural Societies would have succeeded in getting a No. 3 Schedule, and thus obtaining a measure of justice (note that, Mr. Reid) for those drug-store men who have been denied an entrance to the Pharmaceutical Society by reason of the ridiculously unsuitable and unnecessarily severe Minor examination. Many chemists affirm that such a schedule will benefit chemists; just look at the Easton's syrup tabloid case this week! I wonder how many chemists' poison-books contain any signatures for such tabloids, or tablets either? I am willing to declare that though I must have sold half a gross during the last twelve years, I never got a signature for one bottle, so far as I can recollect. Mr. Glyn-Jones's memory must have been curiously upset. What a pity he was not defending Boots, Ltd.; then he might have recollected Bradford and Miss Margaret McCann, who obtained a round dozen delinquents in Bradford or Leeds for Mr. Leggett; and I think the most of us still make an effort to get signatures for the syrup. Easton's, though not for the tabloids. The Easton's syrup tabloid case is typical of the great change that has taken place in the drug-trade, for when the 1868 Act was framed tabloids were undreamt of, or even any medicines in a "too attractive form." Therefore, we need a No. 3 Schedule.

If Mr. Reid wishes to help his brother chips he will let us have a few more sensible ideas like his "Imperial Council," for the gospel which he preaches is absolutely impossible—in England anyhow. I put it to him like this: Suppose he advertised for a manager, and he was willing to pay the usual 2*l.* 10*s.* to begin, but found the applicants all asking 5*l.*, would he not go very closely into their claims and credentials, and would he not be all the more ready to discharge the chosen one if he totally failed to "make good," as the Yankees say? That is just what the Privy Council have done: they have gone closely—too closely for some—into our case; do not men like Lord Creve exhibit the fact that our case has been gone into? And so long as we "protest overmuch," or obstruct them just so long shall we be left to stew in our own juice. I, for one, am for a settlement and peace; we have quite enough to struggle against if we only have the Sale of Food and Drugs Acts and the Inland Revenue "balsam" label, etc.; indeed, I think we shall soon be prevented from using any labels at all.

JAY MACK. (25/8.)

Letters in Brief.

QUININE BITTERS.—*Mr. Morgan W. James*, Llanelly, referring to the report of the quinine-bitters case (*C. & D.*, August 24, p. 332), writes that he had not the slightest intention of disobeying an order of the Court, and now that the Judge has shown that the use of the words "Gwilym Evans," in the title "formerly Gwilym Evans & James," amounted to a breach of the injunction the words have been omitted from the quinine-bitters label.

Legal Queries.

See the "*C. & D. Diary*, 1907," for much legal information as to all trade matters. In any circumstance not covered by the articles therein, state the case explicitly with all particulars and submit to the Editor.

R. & G. A. (204/69).—The conditions governing the granting of refreshment-house licences are stated in the *Chemists' and Druggists' Diary*. Your second letter has been received.

W. J. B. (207/58).—FERRICYANIDE OF POTASSIUM is not considered to be included in the poison schedule under the heading "metallie cyanides." That is the practice in Great Britain at least.

F. O. (208/12).—There is nothing illegal in trading under a company name, but although it is not uncommon it is risky to sell scheduled poisons under an assumed firm-name.

G. R. A. (210/32).—HOLIDAYS.—We should say that a fortnight's holiday is the custom of the trade, but you should note that, unless a stipulation as to holidays has been inserted in the agreement, an assistant cannot legally claim holidays.

Quit (208/51) writes: "Formerly I paid my rent half-yearly, but at the landlord's suggestion I afterwards paid it monthly. I have done this for the last four years, but have no agreement of any sort. Please inform me if I require to give more than a month's notice to quit, and should the notice be in writing?" ["Quit" is, we should say, a yearly tenant, paying his rent monthly for convenience. If this is so the landlord is entitled to six months' notice, expiring at the end of the year of the tenancy. The notice should be in writing. If our subscriber wishes to leave at the end of the month he should give written notice to that effect, and the landlord might perhaps accept it.]

Delay (206/2).—DELAYED GOODS.—Our correspondent, who lives in Ireland, gave an English firm until a certain date to send off some goods he had ordered, and they were apparently sent off on that day. As no route was specified there was no negligence on the part of the sellers in sending the goods by a route otherwise than "Delay" would have preferred, and under the circumstances we do not think our subscriber is entitled to refuse delivery. Perhaps the sellers might be induced to take back the goods, which "Delay" has been compelled to order elsewhere.

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months. A preliminary condition for reporting on samples submitted is that all particulars as to source and uses are given to us.

Phenazonum (199/58).—RHEUMATISM POWDER.—This we believe to be salicoll.

Gluten (168/1).—(1) DIABETIC FOOD.—The diet of patients suffering from diabetes mellitus must be restricted in the matter of carbohydrates. The chief forms of carbohydrates are starch and sugar, and as bread contains about 50 per cent. of carbohydrates some substitute must be found. Of the substitutes for ordinary bread gluten-bread prepared from gluten-flour is best known. This flour is prepared by enclosing wheat-flour in bags and kneading it in a stream of water, which extracts a large proportion of the starch. Almond-bread, almond-cakes, cocoanut, and aleuronat are other forms of diabetic food, which are more tasty than gluten-bread. Starch converted into a soluble form by malt extract is not suitable for diabetic patients. (2) BAY-SALT, or SEA SALT, is the name given to the residue from the evaporation of sea-water by the heat of the sun in what are called "salt-gardens," this being practised in Portugal and on the shores of the Mediterranean. It is now usually applied to impure salt. ROCK-SALT is one of the forms in which salt is found in Nature. It is mined in Cheshire and other parts of the world. Salt-baths used for rheumatism are made by adding 2 lb. of salt to a bath of hot water. A gallon of sea-water contains on an average 2,500 grains of saline matter in each gallon, of which 1,890 grains is common salt. This is the standard which is aimed at in medicinal baths.

R. E. T. (169/5).—The HAIR-GROWING LIQUID is a spirituous liquid scented with jasmín, but yields no result on analysis.

E. S. (180/70).—CRACKS IN HORSES' HOOFs are generally dressed with tar-ointment held in place with a tarred rope or strap. The pressure of the shoe is relieved in the neighbourhood of the cracks. The powder you send is principally wood-charcoal, and exerts an antiseptic action.

E. M. (203/25).—BUST-DEVELOPMENT.—The paste is a tragacanth one, and acts indirectly through the massage of the parts which is given in applying it. The tablets—red and white—no doubt contribute by improving the general health. Both contain bitter extracts, but the white tablets seem to be aloeitic. There is no iron present.

S. R. P. (Delhi) (180/69).—PLAGUE.—The Croonian Lectures which were delivered before the Royal College of Physicians,

London, this year were on "Plague." The lectures have been published in the "Lancet."

Curious (204/16).—The beetle (which, by the by, was far from dead when it reached us) is a good specimen of a male stag-beetle, *Lucanus cervus*, the largest of the British beetles. The females have no "antlers." These beetles fly at night, and are fairly common in the southern counties. The larvæ feed on old rotten oak-leaves, and take about five years to complete their metamorphoses.

F. B. (210/18).—GLYCER. HEROINE Co.—The recipe you require is as follows—it is from the "Canadian Formulary":

Heroine hydrochloride	...	...	gr. x.
Chloroform	...	...	℥xx.
Syrup of roses	...	...	3x.
Distilled water	...	...	5ij.
Alcohol	...	...	℥xl.
Glycerin to	...	...	5xx.

Dissolve the heroine in the water, and add the syrup gradually, shaking after each addition. Dissolve the chloroform in the alcohol, add to the syrup; then add glycerin to 20 oz.

C. W. (208/13).—ESSENCE OF LINSEED.—The formula you require is as follows:

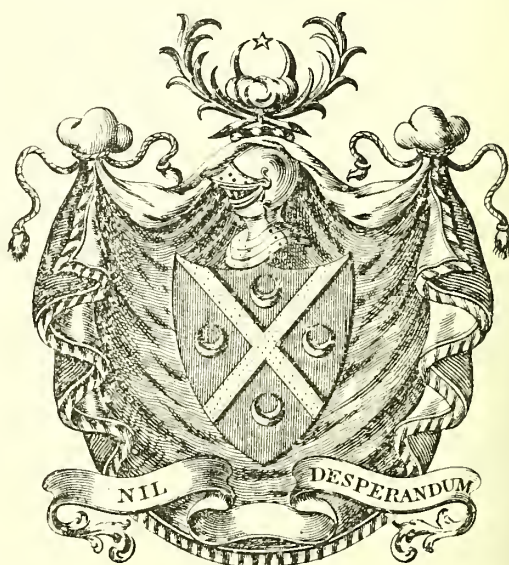
Oxymel, scillæ	...	...	5vj.
Syrup, scillæ	...	...	3iv.
Acid. hydrobrom. dil.	...	...	3ij.
Liq. ammon. acet. conc.	...	...	3ij.
Aceti ipecac.	...	...	3ij.
Dec. senegæ conc.	...	...	3ij.
Chlorodyni	...	...	3j.
Inf. lini ad	...	...	3xxiv.

5j. pro dosi.

Stearine (209/13).—SKIN-TOMADE.—A mixture of glycerin and transparent soap would probably give you the preparation you require, but perhaps you can send us a sample of the article you refer to.

Bolus (210/38).—HARROGATE BATHS.—The old sulphur-spring at Harrogate is celebrated for its sulphuretted hydrogen. In the case of your customer, who cannot leave to take the course of baths at Harrogate, the medical man could order sulphurated-potash baths to be taken at home. Perhaps if you talked the matter over with the doctor he would recognise that sulphurated-potash baths (2 oz. to 4 oz. in a bath) are good substitutes for the real Harrogate baths.

Pharmaceutical Book=plates.



Johannes Kinnard.
Pharmacopæus.